

The University of Chicago

THE PARK RIDGE-BARRINGTON AREA
A STUDY OF RESIDENTIAL LAND
PATTERNS AND PROBLEMS IN
SUBURBAN CHICAGO

A DISSERTATION SUBMITTED TO THE FACULTY
OF THE DIVISION OF THE PHYSICAL SCIENCES
IN CANDIDACY FOR THE DEGREE OF DOCTOR
OF PHILOSOPHY

DEPARTMENT OF GEOGRAPHY

1942

By

ROBERT CHARLES KLOVE

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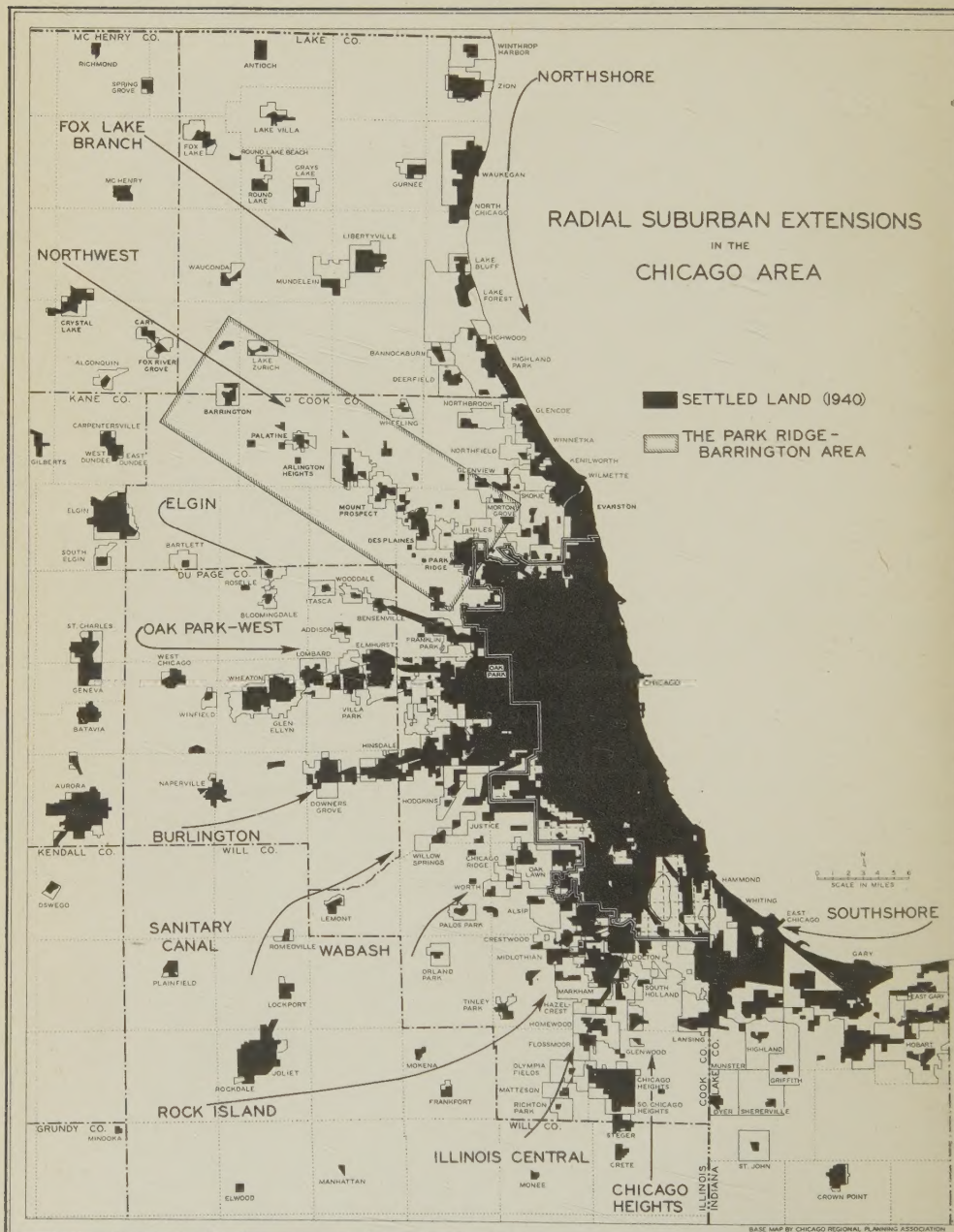


FIGURE 1

The University of Chicago

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This is my opportunity to thank all members of the faculty of the Department of Geography at the University of Chicago for their stimulating instruction, their friendly interest, and their financial awards which have made study possible at the university. I am heavily indebted to Professor Charles C. Colby under whom this dissertation was written and who by his sound counsel and through the enthusiasm of his scholarship has encouraged the author to complete the task.

Work on this dissertation was undertaken about two years ago. The field mapping was done during the summer of 1940 and involved over 2,000 miles of auto travel within the area. Writing, interviewing, research in official records, and map drafting occupied the autumn of 1940 and the winter of 1941. Since May 1, 1941 the author has been employed by the Chicago Plan Commission, and the experience gained thereby has added immeasurably to the quality of the dissertation. Thanks are due to my colleagues for many ideas and particularly to my superior, Mr. Homer Hoyt, Director of Research.

Numerous organizations and individuals freely furnished information and suggestions. Mr. Robert Kingery, Manager of the Chicago Regional Planning Association, early made available the facilities of his office, and I am grateful to all members of the staff for their aid and interest. Data on rail commutation was supplied by Mr. R. Thomson, Manager of the Passenger Traffic Department of the Chicago and North Western Railway. The author appreciates discussions with Mr. Harold M. Mayer of the Chicago Plan Commission staff, especially on transportation matters. Mr. Frank Carr of the Office of the Cook County Clerk allowed the author access to the records of special assessment tax delinquency. Mr. George Mitten of the Public Service Company of Northern Illinois supplied data on industrial movements in the area; Mr. Benjamin Draper, formerly of the Illinois State Tax Commission was helpful on tax problems; and Mr. J. Frank Graf, vice president of the Chicago Title and Trust Company, made available early subdividing

records.

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April 2, 1942

Robert C. Klove
Chicago, Illinois

TABLE OF CONTENTS

	Page
ACKNOWLEDGMENT	ii
LIST OF TABLES	vi
LIST OF ILLUSTRATIONS.	viii
Chapter	
I. THE PARK RIDGE - BARRINGTON AREA IN THE RURAL-URBAN FRINGE OF CHICAGO	1
Section 1. The Park Ridge - Barrington Area.	2
Section 2. Broad Patterns in the Rural-Urban Fringe	4
Section 3. Employment Structure	11
Population Characteristics and Trends.	12
Local Employment and Commuter Movements	18
II. LAND USE PATTERNS AND METROPOLITAN INFLUENCES.	23
Section 1. Land Use Patterns in the Park Ridge - Barrington Suburbs	23
Suburban Residential Pattern.	23
Other Suburban Patterns in Relation to the Residential Pattern.	33
Section 2. Land Use Patterns of the Park Ridge - Barrington Rural Area	50
Agricultural Residence Pattern	51
Non-agricultural Residence Patterns	52
Other Rural Patterns in Relation to the Residential Patterns.	56
Section 3. The Influence of Metropolitan Factors on the Future Growth of the Park Ridge - Barrington Area	60
Transportation	60
Urban Blight	63
Housing Programs.	64
City Government and Taxation.	65
Outlying Shopping Centers.	65
Industrial Movements	66
Metropolitan Agriculture	67
Competing Extensions	68
III. PREMATURE SUBDIVIDING.	69
Section 1. Subdivision Cycles and Patterns.	69
Early Occupancy and Original Subdivision Plats.	69
From Civil War Through World War I.	72

TABLE OF CONTENTS - Continued

Chapter	Page
The Nineteen-Twenties	75
The Depression and Recent Years.	77
Section 2. A Measure of Premature Subdividing. . .	78
Section 3. Vacant Subdivided Land With Local Improvements	81
Pattern of Wasted Local Improvements	81
Significance of Wasted Local Improvements . . .	83
Section 4. The Future of Prematurely Subdivided Land.	86
Subdivided Land Affected by Current Building Expansion	87
Subdivided Land Unsited for Future Development	88
Subdivided Land with Development in Doubt . . .	89
IV. NEW RESIDENTIAL GROWTH AND LAND PLANNING	97
Section 1. The Conformance of New Residential Growth to Sound Land Planning Practices . . .	97
Low Price Subdivisions.	99
Medium Price Subdivisions.	105
High Price Subdivisions	111
Section 2. Future Planning for the Area.	114
APPENDICES	
I. SUPPLEMENTARY TABLES	119
II. NOTES ON THE FIGURES	126
BIBLIOGRAPHY.	128

LIST OF TABLES

Table	Page
1. Selected Characteristics of the Eleven Radial Sub-urban Extensions of Chicago.	6
2. Population Statistics for Cities and Villages in the Northwest Extension	14
3. Nationality Statistics for Park Ridge and Des Plaines	18
4. Local Employment and Commuting in the Northwest Extension.	20
5. Relation of Number of Blocks in Each Residential Use Density Class to Total Residential Blocks, by Suburbs	26
6. Neighborhood Classification in the Park Ridge - Barrington Suburbs.	33
7. Retail Trade of Larger Suburbs in the Park Ridge - Barrington Area, 1939.	36
8. Park Acreage in the Park Ridge - Barrington Suburbs .	40
9. Percentage of Residential Blocks Serviced with Local Improvements, by Suburbs.	45
10. Number of Occupied Residential Blocks without Local Improvements, by Suburbs.	45
11. North Western Railway Services and Fares for Park Ridge - Barrington Stations	47
12. A Measure of Premature Subdividing: The Ratio of Vacant Homesites to Occupied Homesites, by Suburbs and Rural Districts	80
13. Relation of Vacant Residential Blocks with Local Improvements to Total Residential Blocks with Local Improvements, by Suburbs.	83
14. Number of Vacant Residential Blocks with Local Improvements, by Suburbs	83
15. Delinquent Special Assessments, by Suburbs. . . .	87
16. Distribution of Major Active Subdivision Units by Residential Price Classes, 1941	100

LIST OF TABLES - Continued

Table	Page
17. Population of the Park Ridge - Barrington Suburbs, 1880-1940.	119
18. Number and Distribution of Original Block and Lot Subdivisions Recorded and Not Vacated in the Park Ridge - Barrington Area by Suburbs and Rural Districts, 1854-1941	119
19. Selected Data on Major Active Subdivision Units in the Park Ridge - Barrington Area, 1941	122

LIST OF ILLUSTRATIONS

(All illustrations except Figure 1
are in the back pocket)

Figure

1. Radial Suburban Extensions in the Chicago
Area. Frontispiece
2. Pattern of Residential Use Density
3. Pattern of Residential Age
4. Pattern of Residential Construction and Design
5. Pattern of Residential Upkeep and Landscaping
6. Time Sequence Pattern of Neighborhood Development
7. Selected Non-residential Uses
8. Vacant Land Served with Local Improvements
9. Expansion of Subdivided Land, 1854-1941

CHAPTER I

THE PARK RIDGE - BARRINGTON AREA IN THE RURAL-URBAN FRINGE OF CHICAGO

The Park Ridge - Barrington Area is a section of the partly urban, partly rural periphery of Chicago. On the whole the Chicago periphery has a stellate pattern closely related to the spoke-like display made by the numerous railways which radiate from this great railway center (Fig. 1). All of the suburban extensions of the city have developed along railway lines. In recent times highways roughly paralleling the railways have been constructed through these suburban settlements, and motor transport and traffic have affected suburban life in many ways. Nevertheless, the suburban pattern still adheres to the railways which gave the original direction to its growth.

The development of the suburban pattern of Chicago has been accompanied by continuing problems of governmental jurisdiction and services, of premature subdivisions, of delinquent taxes and other problems in kind.¹ These problems are widely evident in the rural-urban fringe but nowhere are they more conspicuously present than in the Park Ridge - Barrington Area. This area, moreover, has a reasonable homogeneity in its employment structure, and the total population is not too large for a single investigation. For these reasons the Park Ridge - Barrington Area was selected as the scene of interest in this study of residential land patterns and problems in suburban Chicago.

¹For general discussions of the problems in rural-urban fringe areas see:

Leonard A. Salter, "The City-Country Equation," Land Policy Review, II (November-December, 1939), 24-31.

Alvin T. M. Lee, "The Rural Urban Fringe," Proceedings of the National Conference on Planning Held at Philadelphia, Pennsylvania, May 12-14, 1941 (Chicago: American Society of Planning Officials, 1941), pp. 28-37.

Larry F. Diehl, "Problems of Suburbia (More than Mosquitoes Are in Suburbia)," Land Policy Review, IV (August, 1941), 8-13.

Section 1. The Park Ridge - Barrington Area

Extending in a chain northwestward from the city limits of Chicago lie six suburbs, beginning with Park Ridge and ending with Barrington. The intervening suburbs in order outward from the city are Des Plaines, Mount Prospect, Arlington Heights, and Palatine. Outside of the incorporated limits of each of these suburbs are numerous subdivision settlements. Primarily, these suburbs and unincorporated subdivision settlements serve as places of residence for families whose employed members commute daily to Chicago. Together with the adjoining rural lands, they comprise what has been called in this dissertation the Park Ridge - Barrington Area. With a length of about twenty-two miles and a width of roughly eight miles the area is large in size and, indeed, is only slightly smaller than that occupied by the City of Chicago. Airline distance from the center of Chicago to these suburbs ranges from twelve to thirty-four miles and gives an approximation of the length of commuting travel (Fig. 1).

The towns of the Park Ridge - Barrington Area form the inner links of a long chain of towns which extends northwestward about fifty miles from the Chicago border. The outer towns also number six and by name, in progression outwards, are Fox River Grove, Cary, Crystal Lake and Lakewood, Woodstock, and Harvard. Residence for commuters to Chicago is not the dominant function in any of these towns and fades almost completely in Harvard. This chain of twelve towns forms a radial prong of suburban growth from Chicago and has been called the "Northwest Extension." This extension represents a characteristic phenomenon of urban fringe expansion, a phenomenon which has had a very marked development in the metropolitan area of Chicago.

The towns of the Northwest Extension are tied to one another and to Chicago by the Wisconsin Division of the Chicago and North Western Railway. This axial relationship also is based on the presence of the Northwest Highway, a major thoroughfare, which closely parallels the railway along most of its route. Other major thoroughfares converge toward this axis and, thus, tend to emphasize its arterial quality. Of the twelve towns in the Northwest Extension, those of the Park Ridge - Barrington Area are set apart from the others by the extent of their commuter activities.

Evidence in the landscape of this commuting function is found in the transportation facilities. Out to Barrington, for example, the railway is triple-tracked and the Northwest Highway and the most important subsidiary route, Rand Road, are four-laned. Beyond Barrington the railway has only double-tracks and the highways are two-laned.

Other landscape evidence of the fundamental distinction between the inner and outer portions of the Northwest Extension may be found in the character and appearance of both residential and commercial land and buildings. In the inner portion the majority of buildings are relatively new, and much subdivided land is unoccupied. In contrast, the outer towns possess older buildings and fewer vacant parcels of land. While the difference between inner and outer towns or between suburban and what may be called independent towns is very real and clearly visible, it represents a gradual rather than an abrupt change. Between Barrington and Crystal Lake the change appears to be most marked, and the functional balance is tipped from a preponderance of suburban qualities to independent characteristics.

The relationship of the Park Ridge - Barrington Area to the Northwest Extension is shown further by dividing the extension into four segments in terms of the gradual change in the character of functional facilities. The first segment includes the four towns of Park Ridge, Des Plaines, Mount Prospect, and Arlington Heights, which form an extended body of continuous incorporated territory extending from the City of Chicago. Suburban land use, however, is not continuous and each municipality is distinct. These cities and villages¹ and their rural subdivisions would be recognized by most observers as typical suburban communities from the extent, character, and spacing of housing occupied by the commuters. The remaining two villages of the area, Palatine and Barrington, which are separate from each other and from other municipalities, comprise the second segment. Here, commuting is a little less common among the town residents, a fact which is reflected in the higher proportion of older dwellings. Commuting appears to be of undiminished importance for the rural inhabitants

¹Of the twelve municipalities in the Northwest Extension four possess the city form of government--Park Ridge, Des Plaines, Crystal Lake, and Woodstock. The others are villages.

who live on country estates, gentlemen farms, and the generally less pretentious rural subdivisions. Beyond Barrington lie four municipalities, Fox River Grove, Cary, Crystal Lake, and Lakewood, which represent a major change in the functional structure of this northwest radial extension. This segment contains many dwellings which are used exclusively as summer homes. Also, commuting in other directions than toward Chicago becomes significant with major employment attractions offered in Crystal Lake, Woodstock, Elgin, and Waukegan. The fourth and last segment of the extension includes Woodstock and Harvard. These hardly can be considered suburbs, because the number of their commuters to Chicago is negligible, but railway commutation service of a sort is offered. Nor are summer homes found here in any appreciable number. Primarily, they are rural towns serving local trading needs with important interests in local manufacturing. Thus, in a distance of approximately fifty miles the transition has been made from typically suburban Park Ridge to typically "rurban" Harvard with the greatest change occurring between Barrington and Crystal Lake.

Section 2. Broad Patterns in the Rural-Urban Fringe

Eleven suburban extensions, of which the Northwest Extension is but one, radiate from the City of Chicago. Potentially each of the twenty-eight trunk line railway routes¹ entering the Chicago metropolitan area forms an axis for a suburban extension, but along some of these lines no suburbs have developed. Others, particularly those entering along the lake from the southeast and from the north, have paralleled each other so closely that separate extensions never existed, or else the original separate extensions largely have coalesced to form a single wide extension. An extension is defined as a chain of subdivided communities, separate or contiguous, which are attracted to an axis formed by a railway or railways radiating from the city. Furthermore, it must not have coalesced for the major portion of its length with some other extension, and its outer limit is the last successive commu-

¹Of twenty-two trunk line railways four have double routes or divisions, namely the C.M.St.P. & P.R.R., the I.C.R.R., the N.Y.C.R.R., and the Penna.R.R., while a fifth, the C. & N.W.Ry., has three divisions.

nity with rush hour commutation service. The eleven radial extensions include almost all of the suburban growth around Chicago.¹

The orientations and dimensions of these radial extensions are illustrated by the settled area map of the Chicago vicinity (Fig. 1). One extension lies northerly along Lake Michigan--the Northshore (with its Fox Lake Branch); another almost due northwest--the Northwest (of which the Park Ridge - Barrington Area is the inner portion); three branch out westwardly to the Fox River valley--from north to south, the Elgin, the Oak Park - West, and the Burlington; three to the southwest--the Sanitary Canal, the Wabash, and the Rock Island; two to the south--the Illinois Central and the Chicago Heights; and the last and largest in area extends along Lake Michigan to the southeast--the Southshore. In terms of farthest distance from Chicago, number of towns, and total population the extensions show wide differences (Table 1). The Northwest Extension has the greatest length, over 50 miles; and the Wabash Extension is the shortest, less than 10 miles. They vary in number of towns from 6 to 30 with the Northwest Extension having 12. In population the Northwest Extension ranks in seventh place with its 1940 population of 49,197. This is not large in comparison with the populations of the four great extensions, Southshore, Burlington, Oak Park - West, and Northshore; but it is notable that this population is accumulated from a large number of medium sized towns rather than from many small villages and one large city, as is the case in the extensions of Elgin, Rock Island (or Joliet), and Chicago Heights.

In the physical setting of Chicago and its suburbs three features are prominent. These are Lake Michigan, the level lacustrine plain of old Lake Chicago, and the bordering morainic upland, which for the most part is only a little higher in eleva-

¹For a presentation of the patterns of settled area in selected large American cities see Homer Hoyt, The Structure and Growth of Residential Neighborhoods in American Cities, U. S. Federal Housing Administration (Washington: Government Printing Office, 1939), pp. 9-12.

Also of value for comparison with the Chicago metropolitan pattern are:

U. S. National Resources Committee, Regional Planning, Part II. St. Louis Region (Washington: Government Printing Office, 1936), pp. 20-24.

Maryland State Planning Commission, Regional Planning, Part IV. Baltimore-Washington-Annapolis Area (Baltimore: Maryland State Planning Commission, 1937), pp. 20-30.

TABLE 1

SELECTED CHARACTERISTICS OF THE ELEVEN RADIAL
SUBURBAN EXTENSIONS OF CHICAGO

Extension	Railroads ^a	Other Commutation Services To Loop ^b
Northshore	C.& N.W.Ry. (Milwaukee div.) C.N.S.& M.R.R. (Shore Line route and Skokie Valley route)-- electric C.M.St.P.& P.R.R. (North div.)	Chicago Rapid Transit (Northshore branch and Skokie branch)
Northwest	C.& N.W.Ry. (Wisconsin div.)	
Elgin	C.M.St.P.& P.R.R. (West div.)	
Oak Park - West	C.& N.W.Ry. (Galena div.) C.A.& E.R.R.--electric	Chicago Rapid Transit (Lake Street division and Garfield Park and Westchester branches)
Burlington	C.B.& Q.R.R.	Chicago Rapid Transit (Douglas Park branch)
Sanitary Canal	Alton R.R.--very limited service A.T.& S.F.R.R.--suburban service discontinued	Bluebird Line
Wabash	Wabash Ry.--very limited service	
Rock Island	C.R.I.& P.R.R.	South Suburban Safe- way Lines, Inc.
Illinois Central	I.C.R.R. (Main line south)-- electric	South Suburban Safe- way Lines, Inc.
Chicago Heights	C.& E.I.R.R.--suburban service discontinued C.& W.I.Ry.--very limited serv- ice and only to Dolton	South Suburban Safe- way Lines, Inc.
Southshore	N.Y.C.R.R.--very limited service Penna.R.R.--very limited service C.S.S.& S.B.R.R.--electric	Chicago & Calumet District Transit Co.

^aRegular and suburban time schedules.

^bIllinois State Commerce Commission, Twenty-Third Annual Report, July 1, 1939 to June 30, 1940 (Springfield: State of Illinois, 1940), pp. 149-52, and schedules of individual bus companies.

TABLE 1 - Continued

Radial Highways	First Town	Last Town	Number of Towns	Length of Extension (Miles)	Total Suburban Population 1940 ^c	Functional Classification
Sheridan Rd. Green Bay Rd. Skokie Rd. Waukegan Rd.	Evanston	Kenosha	30	42	257,958	Commuter
	Niles	Fox Lake		38		
Rand Rd. Northwest Hwy.	Park Ridge	Harvard	12	50	49,197	Commuter
Elgin Rd.	Elmwood Park	Elgin	9	26	63,026	Industrial-rural
North Ave. St. Charles Rd. Roosevelt Rd.	Oak Park	St. Charles Geneva Batavia	21	29	199,154	Commuter
Ogden Ave.	Cicero	Aurora	17	31	232,935	Commuter
Joliet Rd. Archer Ave.	Summit	Joliet	9	25	15,338 ^d	Industrial-rural
Southwest Hwy.	Evergreen Park	Orland Park	6	10	9,101	Industrial-rural
.....	Blue Island	Joliet	9	26	68,012	Industrial-rural
Governor's Hwy.	Riverdale	Richton Park	12	12	34,455	Commuter
Halsted St.	Dolton	Crete	8	14	36,523	Industrial-rural
Dunes Hwy.	Hammond	Michigan City	20	38	322,100	Industrial
		Valparaiso		27		

^cU.S. Bureau of the Census, Sixteenth Census of the United States: 1940. Population, First Series, Number of Inhabitants, Illinois (Washington: Government Printing Office, 1941), pp. 19-24.

^dExcluding Joliet which is included in total for Rock Island Extension.

tion than the plain and varies in relief from almost level to rolling. The City of Chicago is located almost entirely on the lake plain, and the suburban extensions begin on the plain and spread radially onto the moraines. The contact which the different extensions have with the plain varies considerably. The moraine topography of the fringe has contributed to the residential attractiveness of Chicago suburbs while the lacustrine topography of the center has aided especially the development of transportation and industry. To the northwest the boundary between plain and upland is very irregular.¹ Indeed, there is no dividing line but rather a wide transition belt, extending from Park Ridge to Arlington Heights, in which the change in relief is almost imperceptible. The only interruption is presented by the Des Plaines River, which cuts south across the extension between Park Ridge and Des Plaines.

The development of suburban extensions along railway lines has been noted. No suburban extension, as large or as clearly outlined as any of the eleven herein considered, has developed along any radial highway from Chicago which is separate from railway lines. Away from the railways there are successful residential communities, and in some instances now these appear to be forming branches along highway axes to the main rail extensions. All these communities, however, depend on public bus or private car transportation to the nearest rail station. No large community whose residents require daily access to the city apparently can rely on private transportation alone for a major part of the distance. Also, industrial suburbs, which may be largely independent of daily rail commutation, depend heavily on rail freight service and, accordingly, are aligned along the railways.

Functionally each of these extensions presents such a unique pattern of residential, industrial, and rural land uses that classification is exceedingly difficult. In broad terms three types may be recognized, of which two are strongly developed--the commuter and the industrial,--and one is weakly developed--the industrial-rural. The first group includes five extensions: the Northshore, the Northwest, the Oak Park - West, the

¹J. Harlen Bretz, Geology of the Chicago Region, Part I - General, Bulletin No. 65, State Geological Survey (Urbana: State of Illinois, 1939), p. 21. This is the most recent geological and physiographic description of the Chicago region. See especially Plate I.

Burlington, and the Illinois Central. In all of these the daily commuting movement to the city is highly significant in most of the towns, and various evidences of this movement are stamped on the faces of these towns. Only the Southshore Extension falls into the second or industrial class. In many ways the latter is independent from Chicago, but it does depend greatly on Chicago's rail and market facilities. The non-industrial communities within this extension are suburban to Southshore industrial centers rather than to Chicago. The third or weakly developed class includes the balance of Chicago's suburban extensions. These five extensions, the Elgin, the Sanitary Canal, the Wabash, the Rock Island, and the Chicago Heights, are distinguished by their numerous small rural and semi-suburban communities. Except for the Wabash each extension ends in an industrial satellite, and the Elgin and the Rock Island both possess inner industrial concentrations.

The industrial pattern of the rural-urban fringe, while showing concentric tendencies around Chicago, has many interruptions.¹ The outer ring of industrial satellites does not touch every extension, nor does the inner ring of industrial suburbs, which tends to adjoin the city. Large industrial satellites and suburbs are present in commuter extensions, but their importance to the city is overshadowed by the residential suburbs. In some extensions industry is scattered; in others it is concentrated; there is little regularity in the pattern. A widely spread distribution of industry among the towns and the absence of large industrial concentrations characterize the Northwest Extension (Table 4, Column 4).

The quality of commutation service helps to measure both the functional character of the extensions and the intensity of commuter development. In the five commuter extensions the quality of commutation rail service based on frequency of morning and evening trains ranges from good to excellent. The North Western line in the Northwest Extension rates as good. In all other extensions service during rush hours is fair to poor or no trains at all. In terms of type of commutation service and number of lines, the commuter extensions also stand out above the non-

¹Chicago Regional Planning Association, "Industrial Employees in the Region of Chicago, 1940," Unpublished map.

commuter group. The Northwest Extension with only one line to the city and that not electrified is handicapped in competition with other commuter extensions. In two of the commuter extensions, the Northshore and the Oak Park - West, electric interurban service supplements steam service. In a third, the Illinois Central, the trunk railroad has been electrified and provides the best single service in metropolitan Chicago. In three of the extensions, the Northshore, the Oak Park - West, and the Burlington, the inner suburbs are served also by Chicago Rapid Transit lines. In all five commuter extensions local transportation in the inner suburbs is provided by local street car or motor bus lines. From this review, which rests on facts outlined in Table 1, it is apparent that the total service of the Northwest Extension is slightly inferior to that in the other four commuter extensions. Its population, which is smaller than all others except the Illinois Central, is evidence of inferior service.

The division of the Northwest Extension into inner and outer portions has been distinguished. The other commuter extensions with one exception, the Illinois Central, all possess similar divisions. The Illinois Central lacks an outer portion. The Park Ridge - Barrington Area has its counterparts in the Oak Park - West Chicago Area of the Oak Park - West Extension; in the Cicero - Downers Grove Area of the Burlington Extension; in the Harvey - Matteson Area of the Illinois Central Extension; and finally in the Evanston - Lake Bluff Area and the Niles - Bannockburn Area of the double Northshore Extension.

A further functional differentiation of significance between all the extensions concerns the presence or absence of summer homes in their outer portions. The Fox Lake branch of the Northshore Extension has many summer home communities, which clearly have developed in response to the site qualities of this lake-studded area and to its nearness to Chicago. The Northwest Extension shares in this development around Crystal Lake and north of Barrington. Fox River Grove, Cary, and the adjacent area on the Fox River represent the river type of summer home development, which in turn is shared southward along the Fox River by the three westward extensions. The three southwest and the two south extensions possess no summer home communities because of lack of attractive water facilities. The Southshore, hampered by industrial dominance, has developed summer communities along Lake Michigan

only in its outer portion between Gary and Michigan City.

Between the radiating suburban extensions which dominate the rural-urban fringe pattern of metropolitan Chicago lie widening sectors of unincorporated land. The functional character of these sectors has significant effects upon and interrelationships with the functional character of towns within the extensions. Each of the sectors in the broad outlines of its pattern is similar to each of the other sectors; divisions are concentric rather than sectional. Three belts are distinguished.¹ The innermost belt is much cut up by suburban occupancy, but to the northwest, the southwest, and the south are the remaining truck farming districts of Chicago. Truck farming is localized on the plain of old Lake Chicago, but dairy farming is on the bordering morainic upland. The division is not always sharp, and suitable soil on the only slightly higher upland in some sectors of the Chicago area may be used for the raising of vegetables. The increase in rural residential subdivisions and various specialized agricultural land uses is encroaching on the land devoted to truck crops.

The second belt is marked by the beginning of dairy farming. Within this belt and adjoining the commuter extensions lie also the gentlemen farms, the country estates, and many of the better rural subdivisions. In general, the break between the inner and outer portions of the commuter extensions exists about in the middle of this second belt.

The third and outer belt is occupied largely by commercial dairy farms. This use is interrupted to the north and west by the summer resort communities earlier noted. The intervening towns in this outer belt are small and serve agricultural trading or summer resort functions.

Section 3. Employment Structure

The distinctly suburban character of the Park Ridge - Barrington Area and the progressive fading of suburban functions

¹For a consideration of rural-urban belts and land classification from a different viewpoint see Leonard A. Salter, "Land Classification Along the Rural-Urban Fringe," The Classification of Land, Proceedings of the First National Conference on Land Classification, Bulletin 421 (Columbia: University of Missouri, December, 1940), pp. 147-56, and discussions following, pp. 157-63.

in the outer Northwest towns are emphasized by details of the employment structure. These are viewed in terms of (1) population characteristics and trends and (2) local employment and commuting.

Population Characteristics and Trends

The total non-farm population of the Park Ridge - Barrington Area is estimated roughly to be about 39,000 (Table 2). Of this number almost 35,000 or 89 per cent live within the suburbs and the greater part of the remainder within the rural subdivisions. In terms of population the rural settlements are yet of minor significance. The attraction to the railway axis, the basis of early development and later suburban expansion, still remains strong.

The suburbs of the Park Ridge - Barrington Area have more than twice the population of the outer Northwest towns (Table 2). In fact, the populations of all the towns show a general tendency toward decreased size outward from Chicago. The first, second, and fourth suburbs from Chicago, namely Park Ridge, Des Plaines, and Arlington Heights, rank first, second, and fourth in population. Park Ridge has about 25 per cent of the total population, and the first segment, including Park Ridge, Des Plaines, Mount Prospect, and Arlington Heights, contains 59 per cent. The second segment of Palatine and Barrington contains 12 per cent; the third segment of Fox River Grove, Cary, Crystal Lake, and Lakewood contains 11 per cent; and the fourth segment, Woodstock and Harvard, 18 per cent. The smaller populations of some of the towns farther from Chicago is indicative of waning urban influence.

The trends of population growth help to illuminate the character of the cities and villages in each segment. From 1920 to 1930 the rate of population increase for the first segment was 170 per cent; for the second segment, 81 per cent; for the third, 76 per cent; and minus 4 per cent for the fourth. The great increase for the first three segments reflected the great real estate boom of the middle and late twenties. The fourth segment, including Woodstock and Harvard, was not affected by this suburban expansion. Its slight decrease in population was a characteristic population trend of the period for small American municipalities outside of metropolitan areas.¹

¹U. S. National Resources Committee, Our Cities, Their

During the last decade the percentages of population growth for the four segments were respectively 14, 8, 7, and 9. The rates of increase for the first three segments are not comparable in magnitude with their rates of the previous decade, although the proportionate share of each is maintained. This is explained by the general depression and its effect on real estate and construction activity. The reversal of the downward trend in the fourth segment adds confirmation to the view that Woodstock and Harvard are subject to other than urban influences. An interesting feature of the rates for both decades is the progressive decline outward from the city in the first three segments. This decline in rate of growth, as well as in absolute size, is evidence that suburbanization in metropolitan areas progressively weakens with increasing distance from the city.

If the suburban principle of population growth were the only one functioning in the region of a great city, it would be logical to expect that each successive municipality in an extension would be smaller than its inner neighbor and that no municipality would exist beyond the point where the economic and social advantages of a suburban home did not equal the economic and social disadvantages of the long daily travel to and from the place of work in the city. Illustrations of such extensions conceivably may be found in situations where they enter a territory barren of rural support, but in most extensions the rural-village principle of growth has at present or has had in the past an important influence on most towns. Briefly and simply stated, the principle of rural-village growth is that most rural villages originate and prosper because of a community need for trade and for local social life. All of the cities and villages in the Northwest Extension except Lakewood¹ had their original growth as the result of the working of this principle, and all except Park Ridge and Lakewood share in significant ways in the performance of these rural functions even today.

At least two other principles of growth have had important effects on the towns of this extension. One is the principle of

Role in the National Economy, Report of the Urbanism Committee (Washington: Government Printing Office, 1937), p. 8.

¹Lakewood originated as a community of summer homesites bordering Crystal Lake.

TABLE 2
POPULATION STATISTICS FOR CITIES AND VILLAGES
IN THE NORTHWEST EXTENSION^a

Cities and Villages	Population		
	1920	1930	1940
Park Ridge.....	3,383	10,417	12,063
Des Plaines.....	3,451	8,798	9,518
Mount Prospect.....	349	1,225	1,720
Arlington Heights.....	2,250	4,997	5,668
Segment 1.....	9,433	25,437	28,969
Palatine.....	1,210	2,118	2,222
Barrington.....	1,743	3,213	3,560
Segment 2.....	2,953	5,331	5,782
Park Ridge - Barrington Suburbs	12,386	30,768	34,751
Fox River Grove.....	193	641	693
Cary.....	463	731	707
Crystal Lake.....	2,249	3,732	3,917
Lakewood.....	...	...	125
Segment 3.....	2,905	5,104	5,442
Woodstock.....	5,523	5,471	6,123
Harvard.....	3,294	2,988	3,121
Segment 4.....	8,817	8,459	9,244
Total.....	24,108	44,331	49,437

^aSixteenth Census of the United States: 1940. Population, First Series, Number of Inhabitants, Illinois (Washington: Government Printing Office, 1941), pp. 6-24.

TABLE 2 - Continued

Percentage of Total Population 1940	Percentage Population Increase		Total Community Non-farm Population 1940 ^b	Ratio of Foreign-born Whites to Total Whites 1930 ^c
	1920 - 1930	1930 - 1940		
24.4	208	16	12,800	19
19.3	155	8	10,800	25
3.5	151	40	2,400	11
11.4	122	13	6,100	26
58.6	170	14	32,100	14
4.1	75	5	3,000	11
7.2	84	11	4,000	19
11.7	81	8	7,000	10
70.3	148	13	39,100	13
1.4	132	8	...	...
1.4	58	- 3	...	...
7.9	66	5	...	27
0.3	...	...	...	...
11.0	76	7	...	27
12.4	- 1	12	...	11
6.3	- 9	4	...	10
18.7	- 4	9	...	10
100.0	84	12	...	13

^bThe 1940 urban population plus estimate of 1940 rural non-farm population.

^cFifteenth Census of the United States: 1930. Population, Vol. III, Part I, pp. 628-35, 674-76.

local manufacturing development in response to favorable conditions of the various factors of production and distribution. All of the larger municipalities except Park Ridge have notable manufacturing functions. The other is the principle of summer community development in response to favorable site factors and accessibility to metropolitan demand. Only the third section has felt the influence of this principle very strongly.

The variations in the size and the rate of growth of the individual municipalities can be explained only in general terms, (1) because of the difficulty of evaluating both the present and the historical influence of each of the principles of population growth working on a particular municipality and (2) because of the degree to which each of the principles of growth may vary from any norm, which might be expected, due to differences in site and situation and to differences in human initiative. Possibly the Northwest Extension is less difficult to analyse than many others because of lack of distinctive differences in site and because of its situation, which keeps it widely separated from the influence of other extensions.

Park Ridge is distinctly a response to the suburban principle of growth and logically might be expected to be the largest suburb, because it adjoins the city. Park Ridge also is expanding at a more rapid rate than any other suburb except Mount Prospect. The rate of increase of the latter, however, is less significant because of its smaller size. The recency of the growth of Mount Prospect is not due to inherent disadvantages of site but to the fact that settlements in Arlington Heights and Des Plaines precluded need for an in-between settlement for a long period. The normal suburban populations of Des Plaines, Arlington Heights, and Barrington have been increased as the result of local manufacturing functions. Fox River Grove and Cary possess both suburban and summer community functions. Population growth has not been large, because the sites and the quality of occupancy are only moderately attractive, and distance from Chicago is greater. Crystal Lake is the only municipality to share the influence of all four principles of development, which would help to explain its size. The rural-village populations of Woodstock and Harvard have been augmented as the result of large local manufacturing development.

A population characteristic of the Northwest towns, also

worthy of note, is racial and ancestral composition. In each of the municipalities the percentage of persons of the negro and other than white races is less than a half of 1 per cent of the total population. The foreign-born white population varied in 1930, among the municipalities of 1,000 people or over, from 10 per cent to 27 per cent of each one's total population (Table 2). For the urban population of the state as a whole the percentage is 19.5 per cent.¹ The proportion of foreign-born white population is low for Mount Prospect, Palatine, Woodstock, and Harvard and high for Des Plaines and Arlington Heights. The lower ratios appear to be characteristic of (1) the municipalities which have been little influenced by the suburban principle of population growth for reason of distance from the city, and (2) those municipalities which were slow in developing their suburban function and which have not developed the manufacturing function to any significant degree.

Statistics on the country of birth of foreign-born whites and native whites of foreign or mixed parentage are available only for Park Ridge and Des Plaines (Table 3), but field work has indicated the more prominent nationalities in some of the other communities. Better than a third of the people in the first two cities are of German ancestry or birth. In Park Ridge about a quarter are Scandinavians and another quarter are of recent British origin. The other nationalities are well divided in Park Ridge. In Des Plaines, British and Scandinavians rank second and third, but Italians and Bohemians also are important minor groups. The presence of German Lutheran churches and schools in all towns except Fox River Grove and Lakewood indicates that the German element is large. In Fox River Grove the Bohemian element is dominant. Evidence of changing character of populations is scanty, but it is reported that the Scandinavians are increasing their relative strength in Park Ridge. The Jewish people have very few representatives in this extension, and only four families are said to live in Park Ridge.²

¹Fifteenth Census of the United States: 1930. Population, Vol. III, Part I (Washington: Government Printing Office, 1932), p. 591.

²Information on Scandinavian and Jewish nationalities in Park Ridge was contributed by Mr. Irving T. Gillick, Park Ridge realtor.

TABLE 3
NATIONALITY STATISTICS FOR PARK RIDGE
AND DES PLAINES

	Nationality								
	Ger- man	Scand.	Brit- ish	Ital- ian	Czecho- slovak.	Pol- ish	Yugo- slav.	Aus- trian	Oth- ers
Percentage of Foreign-born Whites									
Park Ridge ^a	34	26	22	1	2	2	1	3	9
Des Plaines ^b	40	12	14	8	6	4	4	3	9
Percentage of Native Whites									
Park Ridge ^a	42	21	26	1	2	2	0	2	4
Des Plaines ^c	58	8	16	1	2	1	1	1	12

^aFifteenth Census of the United States: 1930. Population, Vol. III, Part I, pp. 640, 642.

^bFigures derived from special tabulation made by U. S. Bureau of the Census for Paul Gilman Dickey, "A Study of the Church Life of Des Plaines," Unpublished B.D. thesis, Department of Social Ethics, Chicago Theological Seminary, 1937, p. 18.

^cFigures from private canvass made by P. G. Dickey, op. cit., p. 20.

Local Employment and Commuter Movements

A very significant breakdown of the employment structure in all suburban communities is the division between local employees and commuters. The division directs attention to the degree to which a suburb is self-supporting or independent. Among the Northwest communities the ratio of local employees to total gainfully employed ranges from 23 per cent at Mount Prospect to 97 per cent at Woodstock (Table 4, Column 13). For the four suburban segments, in order from the city, the ratios are 33 per cent, 38 per cent, 60 per cent, and 90 per cent. Compliments of the above figures give the percentage of commuters. Thus, these range from 77 per cent at Mount Prospect to 3 per cent at Woodstock (Table 4, Column 14), and the ratios for the four segments are respectively, 67 per

cent, 62 per cent, 40 per cent, and 10 per cent. While the figures for the four segments outward from Chicago show a graduated decline in the proportion of commuters, an examination of the figures for the individual suburbs reveals that the decline is extremely irregular. A very sharp break occurs between Cary on the Fox River and Crystal Lake, and in the outer communities local employees exceed commuters by a wide margin.

An accurate picture of the dependence of all these communities on Chicago is not revealed by the above ratios, because it has been impossible from the data available to separate the auto commuters to Chicago from the auto commuters to other suburbs outside the Northwest Extension and to independent towns outside the metropolitan area (Table 4, Column 10). For the Park Ridge - Barrington Area the ratios are fairly reliable, because most of those who are not employed locally commute to Chicago. Beyond Barrington auto commuting to the city is less common, and beyond Crystal Lake it is rare. Therefore, it is obvious that the non-local auto commuters in the outer communities find employment outside the extension. In Harvard about a quarter of the gainfully employed work outside and beyond the extension in such neighboring cities as Belvidere, Rockford, and Beloit.

Manufacturing is the only type of local employment which markedly distinguishes the suburbs from one another. Park Ridge, Mount Prospect, Fox River Grove, Cary, and Lakewood have no manufacturing or practically none (Table 4, Column 4). In all the other towns employment in local manufacturing is important with the percentage of local employees in manufacturing varying from 33 per cent in Des Plaines and Palatine to 64 per cent in Woodstock. Employment in retail trade and service establishments (Table 4, Columns 2 and 3) increases, relative to municipal population size, the greater the distance from Chicago, indicating that the nearer-in suburbs rely heavily on metropolitan shopping centers.

Most commuters in the Northwest Extension have the choice of only two means of transportation into the city, the Northwestern Railway or the private auto. Residents in the Park Ridge and Des Plaines communities in addition possess the services of the United Motor Coach Company, which runs motor buses into northwest and north Chicago. In Table 4 the number of commuters using each of these forms of transportation for each of the towns is

TABLE 4

LOCAL EMPLOYMENT AND COMMUTING IN THE NORTHWEST EXTENSION

Community (1)	Local Employment					Total (7)
	Trade Estabs. ^a (2)	Service Estabs. ^b (3)	Manufac- turing ^c (4)	Agricul- ture ^d (5)	Other ^e (6)	
Park Ridge..	479	122	25(5)	86	510	1,220
Des Plaines.	530	62	595(760)	181	430	1,800
Mt. Prospect	60 ^f	15 ^f	25(5)	25 ^f	100	220
Arlington Heights....	204	60	300(335)	65	240	870
Palatine....	90 ^f	20 ^f	130(75)	30 ^f	120	390
Barrington..	237	45	225(369)	54	160	720
Park Ridge - Barrington Area.....	1,600	324	1,300(1,549)	441	1,560	5,220
Fox River Grove.....	21 ^f	7 ^f	30(0)	10 ^f	40	110
Cary.....	21 ^f	7 ^f	40(10)	10 ^f	30	110
Crystal Lake	240	72	630(725)	50	160	1,150
Woodstock...	474	67	1,590(1,850)	107	250	2,490
Harvard.....	244	53	480(405)	40	120	940
Total.....	2,600	530	4,070(4,529)	658	2,160	10,020

^aIncluding retail and wholesale establishments. Sixteenth Census of the United States: 1940. Retail Trade - Illinois - 1939 (Washington: Government Printing Office, 1941), pp. 7-8, and Census of Business: 1935. Wholesale Distribution, Vol. III (Washington: Government Printing Office, 1936), pp. 109-10.

^bSixteenth Census of the United States: 1940. Service Establishments - Illinois - 1939 (Washington: Government Printing Office, 1941), pp. 5-6.

^cFirst figure indicates number of local inhabitants who are employed in industry within the Northwest Extension. Second figure in parenthesis indicates local industrial employment. Data compiled from three major sources: (1) Answers to questionnaire sent to industrial employers; (2) Illinois Chamber of Commerce, Industrial Directory, State of Illinois, Chicago, 1940; and (3) Chicago Association of Commerce, Manufacturers in the Chicago Region, Chicago, 1940.

TABLE 4 - Continued

Commuters to Employment Outside the Extension				Total Gainfully Employed ^j	Ratio of Local Employees to Gainfully Employed (13)	Ratio of Commuters to Gainfully Employed (14)
By Rail ^g	By Bus ^h	By Auto ⁱ	Total			
(8)	(9)	(10)	(11)	(12)	(13)	(14)
1,360	300	1,860	3,520	4,740	26	76
1,010	200	1,310	2,520	4,320	42	58
310	0	410	720	940	23	77
720	0	730	1,450	2,320	37	63
430	0	380	810	1,200	33	66
470	0	510	980	1,700	42	58
4,300	500	5,200	10,000	15,220	34	66
150	0	100	250	360	31	69
100	0	90	190	300	33	67
300	0	190	490	1,640	70	30
30	0	40	70	2,560	97	3
10	0	290	300	1,240	76	24
4,890	500	5,910	11,300	21,320	79	21

^dRepresenting urban residents engaged in agricultural occupations. Figures from special tabulation made by Bureau of the Census for this study.

^eEstimated as 4 per cent of total community populations. Community populations include urban populations plus rural non-farm populations of adjoining townships (See Table 2).

^fInterpolated figures for incorporated places of less than 2,500 population.

^gComputed from the private records of the Chicago and North Western Railway.

^hEstimated from the records and by interviews at the United Motor Coach Company, Des Plaines, Illinois.

ⁱFigures deduced by subtracting from gainfully employed the total of local employees, rail commuters, and bus commuters.

^jComputed on basis of 1940 census, assuming 1930 ratios.

given (Columns 8, 9, and 10). The figures for railroad commuters are very reliable estimates; those for bus commuters are much less reliable; while those for auto commuters are pure deductions, as indicated by the table (See footnote 1). Despite inaccuracies resulting from the use of the deductive method, the rough estimates are of some value in understanding general commuter flow characteristics. Private autos carry more commuters to the city than do the railway trains at Park Ridge, Des Plaines, and Mount Prospect (Table 4, Columns 8 and 10). At Arlington Heights, Palatine, and Barrington the number of rail commuters and the number of auto commuters to Chicago appear to be about equal. Beyond Barrington rail commuting to the city is still considerable at Fox River Grove, Cary, and Crystal Lake, but as previously indicated, commuting by auto to Chicago falls off very sharply.

Not all of the manufacturing employees live in the suburban community in which they work. Some live in other suburban communities of the Northwest Extension; some live in suburban communities connected with other extensions; while others live in Chicago.¹ Thus, minor flows of commuting workers exist in addition to the major stem, which connects with the heart of the city. Des Plaines, in particular, draws not an inconsiderable number of employees from the city and from outside suburbs as well as from its neighbor suburbs in the Park Ridge - Barrington Area. There is also important commuting into the manufacturing employment centers of Barrington, Crystal Lake, and Woodstock from other communities. Almost all of this commuting is by auto.

¹Based on answers to employment questionnaire sent to major employers in each of the Northwest towns.

CHAPTER II

LAND USE PATTERNS AND METROPOLITAN INFLUENCES

The land use patterns of the Park Ridge - Barrington Area divide into two fundamental groups--the suburban patterns and the rural patterns. The present character and development of these patterns are helping to determine what land use will be like in the future Park Ridge - Barrington Area. The future land use patterns also are being influenced by factors of metropolitan and even broader scope. The threefold division of this chapter is organized to present the characteristics of the suburban land use patterns and the rural land use patterns and to indicate briefly the influence of some of the metropolitan, regional, and national factors upon local land use.

Section 1. Land Use Patterns in the Park Ridge - Barrington Suburbs

Land use patterns in the Park Ridge - Barrington suburbs reveal significant variations both between the suburbs and within the suburbs. The variations have arisen because of many local differences among which the following are of special note: differences in distance from Chicago, differences in railway facilities and services, differences in historical background, and differences in the initiative of individuals. Since residence for commuters is the primary suburban function, attention is focused on the character of the residential pattern and its relation to the other land use patterns.

Suburban Residential Pattern

Basic components of the residential pattern are fourfold: (1) type and size of dwellings; (2) residential use density; (3) age of dwellings; and (4) quality of occupancy. All four were observed and mapped in a block-by-block field survey made by the author. In turn these findings were utilized to draw boundaries delimiting neighborhoods of homogeneous residential character.

The analysis of the residential pattern proceeds with the four above mentioned items and a consideration of neighborhood classification.

Type and size of dwellings.--In all of the suburbs the single-family home so dominates the residential landscape that other types of dwelling structures scarcely are noted. There are no more than eight or ten apartment or flat buildings,¹ and converted residences, while much more numerous, are not prominent. Most single-family dwellings are two-story structures although numerous examples of the bungalow type exist. Because of uniformity in dwelling types no effort was made to map their distribution in the field survey of the area.

A characteristic closely associated with type of dwelling is size of dwelling. This item was mapped on a block basis, but the result was negative in character as far as distinctive differences in the pattern of distribution were concerned. The great majority of the dwellings possess from five to eight rooms. There are only a few isolated blocks or small groups of blocks in which the majority of dwellings are over or under this size class. A comparatively small number of old homes of larger size are found near the center of each suburb with Park Ridge and Arlington Heights possessing the major portion. It is evident that large homes are not in favor, because very few of even the more costly new homes have more than eight rooms. Dwellings of less than five rooms are so scarce within the suburbs that their distribution with one exception may be disregarded. The exception relates to the small frame houses in several of the outlying neighborhoods of Arlington Heights which are associated with small garden farms (For location of garden farm neighborhoods see Fig. 6).

Residential use density.--The survey of residential use density has revealed the distribution of dwellings by block units in the subdivided area of each suburb and, further, has suggested the spacing of dwellings within the blocks. Every block is classified according to the degree that its residential area is occupied by dwellings. Four classes are distinguished. Class 1 includes all blocks in which half or more of the lots or homesites are occupied by dwellings; Class 2 includes all blocks in which there

¹At least six of the apartment structures are located in Park Ridge.

are at least two dwellings but with less than half the lots or homesites occupied; Class 3 includes all blocks in which there is only one dwelling; and Class 4 includes all blocks in which there are no dwellings. The distribution of these four classes of residential use density is illustrated in Figure 2.

In every suburb the major group of Class 1 blocks surrounds the business center, and in all of the suburbs except Mount Prospect it is a large and fairly compact group. All Class 1 blocks in Palatine and Barrington would form a contiguous body, were it not for separation by railroad tracks. The balance of Class 1 blocks in Park Ridge, Des Plaines, Mount Prospect, and Arlington Heights are distributed around in the outer portions of these suburbs as individual blocks or in groups numbering two to nine blocks. The outward scattering of densely occupied blocks in the suburbs closer to the city reflects the greater intensity of growth in the inner suburbs during the last two decades.

Class 2 blocks exhibit two general tendencies in their distribution. First, they form a fringe about Class 1 blocks. Second, they form nuclei, in most instances in newly built-up subdivisions, and are in turn fringed by Class 3 blocks. The distribution of both Class 2 and Class 3 blocks is extremely irregular. Class 4 blocks (completely vacant) are for the most part distributed at or near the outer borders of the subdivided area. They are freely scattered among Class 2 and Class 3 blocks but commonly do not adjoin Class 1 blocks.

Evidence of sometime rampant premature subdividing in the suburbs is provided by Table 5, which shows that in all of these suburbs less than 40 per cent of the subdivided blocks are in Class 1. For the majority the percentage is less than 30 per cent, even dropping to 6 per cent for the lowest. The import of these ratios is heightened when it is remembered that Class 1, according to its definition, may be only 50 per cent occupied. A corollary fact of equal significance is that from 25 to 50 per cent of all blocks in each suburb are in Class 4 or completely unoccupied.

Comparatively, Mount Prospect is the most interesting suburb. Only 6 per cent of its blocks possess Class 1 residential use density, and 50 per cent are vacant. For Palatine the proportion of unoccupied and sparsely occupied subdivided land is almost as great. This condition of low residential use density in both suburbs resulted from more excessive subdividing than in the

TABLE 5

RELATION OF NUMBER OF BLOCKS IN EACH RESIDENTIAL USE DENSITY CLASS TO TOTAL RESIDENTIAL BLOCKS, BY SUBURBS^a

Suburb	Percentage					Total Resid. Blocks
	Class 1	Class 2	Class 3	Class 4	Total	
Park Ridge.....	32	21	13	34	100	447
Des Plaines.....	29	37	7	27	100	325
Mt. Prospect.....	6	27	17	50	100	195
Arlington Heights ^b	28	24	11	37	100	421
Palatine.....	17	23	13	47	100	146
Barrington.....	37	28	10	25	100	150

^aFigure 2. Definitions of residential use density classes are given in preceding text.

^bFor Arlington Heights percentages are adjusted because of the peculiar character of certain blocks of Classes 2 and 3 use density. Blocks completely utilized by small garden farms offer no room for expansion unless type of residence is changed and do not represent premature subdividing. In adjusted figures Classes 2 and 3 blocks in neighborhoods designated in Figure 6 as containing garden farming have been counted as belonging to Class 1. Unadjusted percentages for Classes 1 through 4, respectively, are 15, 27, 21, and 37.

other suburbs during the years from 1926 to 1930. In contrast, Barrington appears to be using its subdivided area most intensely, with the highest percentage of blocks in Class 1 and the lowest percentage in Class 4. Des Plaines is distinguished by having a considerably higher percentage of its blocks in Class 2 and a lower percentage in Class 3 than any of the other suburbs, which is accounted for by its large area of old and new subdivisions whose growth is stunted prematurely.

Another aspect of residential use density is lot or home-site size. Where most dwellings are single-family structures, lot size may give indication of available light and air. In the Park Ridge - Barrington suburbs the great majority of lots are 50 feet in width, and very few fall into 25 or 30 foot frontage classifications. Fifty foot frontages in general are adequate; so the

few variations from this standard are considered of only minor significance. Use of double lots and the low residential use density of most blocks, furthermore, have rendered small lot size of much less importance as an index of insufficient light and air.

Age of dwellings.--Acquaintance with the pattern of dwelling age aids in understanding the evolution of occupancy in these suburbs. Three distinct areas exist in each suburb: (1) the old town center of the pre-motor highway era; (2) the wide encircling band of homes built during that great period of suburban expansion, the decade of the nineteen-twenties; and (3) the few and generally small spots of new growth of the past four or five years. Every block was classified on the basis of when the majority of its dwellings were constructed with three classes, corresponding to the above areal distinctions, being recognized: Class 1, built since 1933; Class 2, built from 1920 through 1933; and Class 3, built before 1920. The block distribution pattern of residential age is illustrated by Figure 3.

In each of the suburbs the nucleus of Class 3 or older dwellings is near the center of present municipal boundaries and on both sides of the Chicago and North Western Railway. These nuclei are smaller than the areas occupied by Class 1 residential use density blocks in all of the suburbs except Mount Prospect where the areas are almost coincidental. Isolated blocks of Class 3 dwelling age in most instances represent individual farm houses (of Class 3 residential use density) in newer subdivisions, which have been slow in developing. Outlying groups of older dwellings are found among the older garden farm subdivisions of Arlington Heights (Table 5, footnote b) and in south Des Plaines, which prior to annexation in 1925¹ was the independent Village of Riverview. Class 1 residential age blocks disclose many of the places in which home construction is progressing at present.

Quality of occupancy.--Occupancy quality may be viewed from many angles, but in the appraisal of the residential situation presented in the Park Ridge - Barrington Area two sets of attributes appear foremost. These are quality of construction and design and quality of upkeep and landscaping. Distribution patterns of these items further describe the character of the indi-

¹Municipal Code of the City of Des Plaines of 1928 (Des Plaines: City Council of the City of Des Plaines, 1928), p. 7.

vidual suburbs and prove essential in understanding the smaller neighborhood units.

Three classes of residential construction and design are recognized: Class 1, good; Class 2, medium; and Class 3, poor. Class 1 includes only those blocks in which the majority of dwellings are considered of both good construction and good design. Class 3, at the other extreme, includes only those blocks in which the majority of dwellings are of both poor construction and poor design. All other occupied blocks fall into Class 2. Evaluation of construction and design is admittedly subjective, yet with certain definite standards of good and poor for guidance reliable general appraisals can be made. Judgments of other field investigators might differ for individual houses or blocks, but over a wide area the changes from good to medium to poor could not fail to be observed. Good construction may be recognized in the use of stone or brick building materials, in expert concrete and masonry work, in durable and attractive window sashes and door frames, and in high grade composition roofing. Poor construction may be reflected in dwellings of frame, stucco, or common brick construction. Second-hand lumber, flimsy window sashes, sagging porches, cracked and rough concrete work, disintegrating mortar, and paper roofing are certain signs of very low quality buildings. Design was coupled with construction, because the various grades of the two are often concomitant, and because both represent conditions that are unchanging. Good design implies medium to large homesites, adequate spacing between houses and setback from street, variety in exterior architecture, and a general harmonious arrangement of architectural types. In contrast, poor design reflects the opposites of the above characteristics. Homesites are narrow and shallow; dwellings are closely spaced; and blocks in general exhibit either marked uniformity of architectural design or complete lack of architectural conformity.

The general medium quality of the suburbs is reflected in the pattern of residential construction and design (Fig. 4). Most blocks are Class 2 for all suburbs except Des Plaines in which Class 3 is more prominent. The greater industrial function of the latter town helps to explain its lower quality housing. Class 1 blocks are assembled in large and compact units, and in several places the units embrace whole subdivisions or subdivision groups. Large units are found in all suburbs except Palatine and

particularly are notable in Park Ridge. Class 3 blocks also have a strong attraction for each other. Such concentrations partly result from the common and intelligent practice, on the part of realtors and builders, of attempting to stabilize housing quality over large areas. It is further significant that both high and low quality block concentrations are found in most quarters of each suburb. There is no tendency for the better homes to be on one side of town and the poorer homes on the other side.

There is a marked correlation between blocks of good quality construction and design and blocks of dwellings constructed since 1919. Many of these homes, if not the majority in some suburbs, are of brick construction in contrast to the frame of the older homes. They also are better designed and more costly.

Upkeep and landscaping represent characteristics of occupancy quality that are transitory in nature rather than permanent. It is quite evident that this quality tends to decline with increasing duration of occupancy. In the field three classes of upkeep and landscaping were mapped: Class 1, good; Class 2, medium; and Class 3, poor. Class 1 includes all blocks in which the majority of dwellings were well maintained and none were badly in need of repairs and in which the major land area was well landscaped. Class 3 includes all blocks in which the majority of dwellings were poorly maintained and in which the major land area was poorly landscaped. Class 2 includes all other occupied blocks. Again the field evaluation was subjective, but certain standards of good and poor were adhered to closely. Good dwelling upkeep or maintenance implies fairly recent painting and good repair of eaves, porches, and roofs. The opposite is implied by poor upkeep. Good landscaping includes medium to large trees planted fairly regularly in parkways, carefully trimmed lawns, and attractive shrubbery. Poorly landscaped blocks lack trees altogether or have ragged, weedy lawns with little or no shrubbery or possess both conditions. While in general the upkeep and landscaping of the major portion of any block is important, an excessively bad condition at one or several residences may operate to bring down the class of the whole block. In the final consideration it is the average impression given by the block that is important, and that idea was in mind when the field mapping was done.

That large groups of Class 1 or well maintained and landscaped blocks are located in all of the suburbs is illustrated by

Figure 5. Smaller groups are not characteristic, presumably because it does not pay to maintain one's property if neighbors fail to do so. Class 3 or poor quality blocks are scattered in groups of two or three with the exception of one larger area in Des Plaines and another in Park Ridge. These two areas represent land subdivided over fifty years ago but only sparsely occupied even today.

Class 1 blocks of upkeep and landscaping have a high distribution correlation with Class 1 blocks of construction and design. In most localities the former encompass a greater area. Not all of the newly built-up subdivisions have Class 1 upkeep and landscaping, although repairs are not needed and lawns are carefully tended--the reason being the lack of any shade trees and the general unkemptness of vacant lots.

Homogeneous neighborhoods.--A major purpose of the occupancy survey of the Park Ridge - Barrington suburbs was to understand the character of the separate localities or neighborhoods making up each of the suburbs. The term "neighborhood" is used here in the sense of a group of contiguous subdivided blocks occupied by residential dwellings of similar type, size, use density, age, and quality of occupancy--in brief, a homogeneous neighborhood. These neighborhoods are not independent community areas, a meaning sometimes implied when the term is used. Most of them do not have their own stores, churches, schools, or parks. Only the individual suburbs in that sense might be called neighborhoods. At the level of detail on which this survey was conducted, namely the block basis, the application of the neighborhood definition has resulted in the delimitation of a fairly large number of neighborhoods of rather small size (Fig. 6). The average areal size is 18 blocks and the population, 369.

The technique of delimiting the neighborhoods was not difficult. All subdivided land within the municipal limits was included in the area divided with the exception of a few unimproved subdivisions which are completely unoccupied or used for farming. The first step in drawing neighborhood borders was to separate by lines all nuclei of denser settlement, as revealed by the pattern of residential use density (Fig. 2). The lines then were adjusted, and new divisions were made in the larger units on the basis of the patterns of residential age, construction and design, upkeep and landscaping, and dwelling size (Figs. 3, 4, 5, and manuscript

map of dwelling size, not published). Thus, the final boundaries between neighborhoods represent a combination of lines separating the classes in each of five items mapped in the field survey. The problem was to select the more significant class division lines for the neighborhood borders. In general, a definite procedure was followed in giving certain lines precedence over others. The class lines of residential use density appeared most significant. The class lines of residential upkeep and landscaping were given second rank and residential age, third. The coincidence of lines of two of these items was held always as sufficient reason for drawing neighborhood borders. The patterns of residential construction and design and of dwelling size were considered lastly, and in a few instances they affected minor changes in neighborhood divisions. Their lesser significance was due partly to the lack of high or low class blocks in group units of sufficient size or compactness.

A few other notes on minor variations in the technique seem pertinent. No neighborhood divisions were made smaller than six blocks. In the larger neighborhoods no redivisions were made if there was much heterogeneity and little agreement between at least two of the items. Only in two cases were neighborhood divisions made on the basis of items other than the five already considered here. One was the delimitation of commercial centers with their bordering fringe of residential use; the other division resulted from the discovery that there are within the village limits of Arlington Heights a large number of garden farms each possessing an area of one block, more or less (Table 5, footnote b). The latter represents a distinctly different type of residential use. Also, a conscious attempt originally was made to draw the neighborhood borders without any reference to subdivision boundaries. In a final review of these borders, however, a few minor adjustments were made to conform neighborhood borders to subdivision boundaries where the former had been set arbitrarily.

Ninety-three neighborhoods are recognized. Their borders are not hard and fast but subject to change with the growth of their suburb. Even the separate existence of some of the smaller and sparsely occupied neighborhoods may be short-lived. Neighborhoods are dynamic rather than static entities, and each has its own history of birth, growth, maturity, and finally decline. Within all long established cities and suburbs neighborhoods exist at

all stages of this life cycle.¹ The 93 neighborhoods of these suburbs are classified into eight groups according to age and certain conditions of their development (Table 6). The largest group, which numbers 25, contains new but stunted neighborhoods (Fig. 6). These are made up of recent subdivisions (almost all recorded since 1925) which are sparsely occupied and which have no current construction or practically none. Sixteen neighborhoods which are not mature or near maturity and are growing slowly form the second largest group. A smaller group numbering 9 are immature but are growing rapidly. Six neighborhoods are approaching maturity. Only 14 are mature, which is to say densely built-up and at the same time maintaining their quality. Another 14 are mature but declining in quality. In only one suburb has a mature neighborhood reached a stage which might be called blighted, yet there are 8 neighborhoods which are immature but long stunted in growth (old but stunted) and at present fast deteriorating in quality.

In comparing the suburbs on the basis of their number of different neighborhoods (Table 6), it is interesting to note that Palatine and Barrington both lack any neighborhoods that are growing rapidly. Greater distance from the city would appear to be the correlating factor. Mount Prospect and Barrington possess no old but stunted neighborhoods and Palatine only one, reflecting their later start as functioning Chicago suburbs. Des Plaines has no neighborhoods approaching maturity and the only blighted neighborhood. The poor construction of homes in the older Des Plaines neighborhoods helps to explain their further advance in the life cycle. The greater numbers of mature neighborhoods and new but stunted neighborhoods in Park Ridge and Des Plaines are reflections largely of their greater size.

¹The concept of "life cycle" was used in an article by L. Elden Smith, "Measuring the Neighborhood Risk," Insured Mortgage Portfolio, II (February, 1938), 9-11, 22-23.

For other statements on neighborhood cycles see:

Stuart Alfred Queen and Lewis Francis Thomas, The City, A Study of Urbanism in the United States (New York: McGraw-Hill Book Company, 1939), pp. 306-308.

Arthur Goodwillie, Waverly, A Study in Neighborhood Conservation (Washington: Federal Home Loan Bank Board, 1940), pp. 3-5.

TABLE 6

NEIGHBORHOOD CLASSIFICATION IN THE PARK RIDGE -
BARRINGTON SUBURBS^a

Suburb	Neighborhoods								
	New But Stunted	Old But Stunted	Growing Slowly	Growing Rapidly	Approaching Maturity	Mature	Declining	Blighted	Total
Park Ridge.....	7	3	3	2	1	5	1	0	22
Des Plaines.....	6	2	2	2	0	4	3	1	20
Mt. Prospect.....	2	0	3	2	1	1	1	0	10
Arlington Heights..	4	2	3	3	2	2	4	0	20
Palatine.....	5	1	2	0	1	1	2	0	12
Barrington.....	1	0	3	0	1	1	3	0	9
Total.....	25	8	16	9	6	14	14	1	93

^aFigure 6.Other Suburban Patterns in Relation to
the Residential Pattern

Land use patterns other than residential are considered here for the influence they exert on the pattern of residential land use. Notable among the other patterns are those of commerce, industry, recreation, institutions, local improvements, and transportation.

Suburban commercial pattern.--For the commercial pattern the influence on the residential pattern has both negative and positive aspects. The negative aspect concerns the detrimental or nuisance effect on residential land use of nearby commercial land use. The positive aspect is the stimulation given to residential land use by reason of convenient access to the suburban type of commercial center represented in the Park Ridge - Barrington suburbs.

Each of the suburbs possesses a single commercial neighbor-

hood. The residential portions of these neighborhoods are medium to low in quality and in the declining period of their life cycle (Fig. 6). Most of the additional declining neighborhoods also adjoin the commercial neighborhood. In this area of decline landscaping is still fair, but most of the houses are not maintained in good repair although in general of medium quality construction and design. Converted structures are more numerous than in other parts of the suburbs. Explanation of these facts lies in historical background. Until comparatively recently the suburbs were small country towns. As such, the distinction between poor and good neighborhoods was developed less well, and, accordingly, many well designed and constructed homes were interspersed among poorer homes in the old town portions. The shopping centers were small, and because of small size their injurious effect on adjoining residential land use was slight. With the rapid suburban growth of the twenties this commercial land use expanded and encroached on the old residential neighborhoods. Expansion was relatively conservative, and local shopping centers remain fairly compact in their occupancy and typically suburban in character, so that deleterious effects are minimized. Moreover, the entire residential decline cannot be attributed to commercial expansion, because other variables also enter in, such as older dwelling age, variety in original quality, and competition from the newer neighborhoods. Nevertheless, it does seem clear that increasing commercialism has had an adverse effect on the old town centers.

A commercial type different in appearance and functional use from the shopping center but also extensive in area is the bulk commodity yard. Dealers in coal, fuel oil, petroleum, lumber, and building materials use land as a warehouse for their merchandise. In almost every case such yards are limited to more or less narrow land strips bordering the railroads. Because of this near-railroad location and because many of the yards are maintained in careful order or shielded by high fences, their nuisance effect on surrounding property is kept low. Only in a few places do they have blighting effects.

The positive influence of the individual shopping centers on the suburbs is seen in terms of their character. Their "suburban" character is the short manner of saying that these shopping centers primarily serve as the source for everyday needs of occupants in the local area. These centers are in contrast to out-

lying metropolitan shopping centers, such as those in Evanston and Oak Park, which offer all types of goods and attract shoppers from over a wide area. Statistical evidence of the character of retail trade in the four larger suburbs is given in Table 7. Number of stores and total sales bear only a rough relationship to population size (Cf. Table 2). Sales volume per capita for Park Ridge and Arlington Heights is considerably below the Cook County average of \$426 per capita. Des Plaines is only slightly above the average. Barrington's sales volume per capita is much higher, reflecting a wider rural trading area and further distance from downtown Chicago and other metropolitan shopping centers.¹ Indeed, Barrington is outside the trade areas of Oak Park and Evanston,² but has some shopping connections with Elgin, some twelve miles to the southwest.³ That all of these suburbs depend heavily on the Loop and on other outside shopping centers for other than everyday needs is further illustrated by the division of sales volume between the leading sales types (Table 7). From a quarter to a third of the local purchases are food. Automotive sales rank a strong second, but the sales of general merchandise, apparel, and furniture are weak.

Banking, motion picture, and local newspaper services are supplied commonly in most suburbs. In the Park Ridge - Barrington Area every suburb has one bank except Palatine, and each except Mount Prospect possesses one motion picture theater. Everyone has one or two weekly newspapers which are printed within the area.

There are notable minor differences between the commercial neighborhoods of these six suburbs. The appearance of the Park Ridge shopping center is distinctly the most modern and has more of the metropolitan sophistication found in the Evanston and Oak Park shopping centers. Des Plaines and the other suburbs to a greater degree have not outgrown strong marks of the rural

¹Barrington's sales volume per capita is of the magnitude of those found in the outer towns of Crystal Lake, Woodstock, and Harvard.

²Eaton Van Wert Read, An Analysis of the Retail Trading Relationships of Elgin, Illinois: A Satellite City, Studies in Business Administration, Vol. IX, No. 1 (Chicago: The University of Chicago Press, 1938), p. 12, and Map of Trade Area of Oak Park (Oak Park: Chamber of Commerce, 1940).

³Read, op. cit., p. 32.

TABLE 7

RETAIL TRADE OF LARGER SUBURBS IN THE
PARK RIDGE - BARRINGTON AREA, 1939^a

Suburb	Total Stores	Total Sales (000's)	Sales Vol. per Capita	Percentage of Total Sales							
				Food	General Mchdse.	Apparel	Furniture, etc.	Restaurants	Drug Stores	Automotive	Filling Stations
Park Ridge..	98	\$4,301	\$357	26	3	5	3	5	6	34	4
Des Plaines.	117	4,158	437	28	x	4	x	3	5	20	6
Arlington Heights...	71	1,660	293	33	x	2	3	2	5	15	8
Barrington..	72	1,987	558	29	3	x	x	x	x	x	x

^aSixteenth Census of the United States: 1940. Retail Trade - Illinois - 1939, pp. 10-15.

Symbol (x) indicates that data has been withheld to avoid disclosure.

influence. It is not at all surprising, since rural trade still comprises an important part of their total trade. An examination of the map (Fig. 1) discloses that Park Ridge could have only a very small rural trading area, by reason of its relative location, and that much of this area is accessible to the Des Plaines shopping center. Des Plaines has made an effort to attract both rural and industrial trade, while Park Ridge has specialized in satisfying the tastes of its own more urbane population.

The commercial differences of the Park Ridge - Barrington suburbs are less striking than the similarities. No one has appreciably more shopping advantages to offer the suburban dweller than any other, and each depends greatly on shopping in the Loop of Chicago and in other metropolitan shopping centers.

Suburban industrial pattern.--The pattern of industry likewise exerts a double effect on residential land use. First, it offers employment to residents; and second, it acts to discourage adjacent growth of high quality residences. Again, the effects on residential land use are partly positive and partly

negative.

Industrial employment is not proportionate to population in these suburbs (Cf. Tables 2 and 4). This is sharply in contrast to the relationship between commercial employment and population and reflects that while commerce of the suburbs is local, industry is regional or inter-regional. In three of the suburbs, Des Plaines, Arlington Heights, and Barrington, industry is of considerable importance with ten firms employing over twenty-five persons each. Five are in Des Plaines, three in Arlington Heights, and two in Barrington. An eleventh firm employing more than twenty-five is in Palatine.

Variety of industry and lack of industrial integration are important characteristics of the industrial picture in the Park Ridge - Barrington Area. Seven different industrial types are represented. Three firms manufacture electrical products and two represent the furniture industry. One each represents food, clothing, metal products, agricultural equipment, and agriculture. Each plant appears to be independent of others in the area, nor are there relations between these plants and plants in the outer portion of the extension from Fox River Grove to Harvard. Both industrial variety and independence make for greater stability in industrial employment, which in turn encourages residential development.

The nuisance quality of industry in these suburbs is not high. All of the plants would fall into any light industry classification. None of the processes used result in by-product wastes or in offensive odors. Yet to a certain extent, every industrial plant has a baneful effect on nearby residential land use unless careful means are taken to create a plant which is attractive in both building and grounds and which harmonizes with the surrounding environment. Only one of the industrial plants has been planned carefully and landscaped so as to prevent any undesirable effect on residential land use. This is the Jewel Tea Company at Barrington (No. 10 indicates location in Fig. 7). The company has promoted Jewel Park (Fig. 9), a very high class residential subdivision adjacent to the park-like grounds of its plant.

Other large plants are not unsightly and commonly are separated from residential land use on most sides. At Des Plaines the Benjamin Electric Company (No. 1 in Fig. 7) has extensive grounds but faces residential land use on only one side. The slow

development of the adjoining neighborhood (Cumberland, Fig. 9) possibly may have been influenced by this nearness. Lord & Burnham of Des Plaines (No. 2, Fig. 7) also faces residential land use on only one front, and the neighborhood represented is the only mature neighborhood of blight in the suburbs (Fig. 6). North of this neighborhood lies a switching yard of the Chicago and North Western Railway which is undoubtedly a much more serious agency of blight than the plant of the greenhouse builders, but both represent only a fractional cause of blight in this instance. The General Engineering and Manufacturing Company (No. 3) has a small building at the edge of the commercial neighborhood and constitutes no more of a nuisance than do commercial enterprises. The Safety Electric Company (No. 4) between the River Road and the Des Plaines River is run-down in appearance but is shaded by trees and shrubbery and can be held responsible only for aiding the deterioration of dwellings within its own block. The other large employer at Des Plaines, Premier Rose Gardens (No. 5) is beyond the built-up subdivided area and not adjoining residential land use.

In Arlington Heights the largest industrial grounds are occupied by the Creamery Package Manufacturing Company (No. 6). It is in an old but long stagnated neighborhood and may be partially the cause for the blight that has taken hold of this neighborhood (Fig. 6). Its building and grounds are very plain and unadorned, but the surrounding use is even less attractive. This consists of vacant land, a greenhouse, and a few scattered houses of poor maintenance. The Arlington Seating Company (No. 7) and E. W. A. Rowles Company (No. 8) occupy sites between the large city park and an undeveloped old subdivision. Undoubtedly the location of these two plants has been influential in discouraging development of this subdivision.

In Palatine the Economy Fuse and Manufacturing Company (No. 9) is located in an old and long stagnated neighborhood. Its building and grounds are well maintained, and its effect on adjoining residential land use is not deleterious. The Jewel Tea Company in Barrington, already mentioned, stands out as an example of attractive industrial planning. The other large employer in Barrington, the Strand Dress Company (No. 11), occupies a small building in the commercial neighborhood and exercises no blighting effect. Other small industries in these suburbs may have detrimental effects on adjacent residential land use, but these are

generally no more than those caused by retail stores or service shops. Zoning in each of the suburbs protects residential areas from the indiscriminant spread of industrial and commercial uses.¹

Suburban recreational pattern.--Parks and playgrounds are essential in suburban communities as well as in urban communities. It has been recommended by the Chicago Regional Planning Association that each suburban community should have 10 acres of park for each 1,000 population and that approximately 3 acres of the 10 should be in playgrounds accessible to all residential neighborhoods.² This is an arbitrary figure and subject to such adjustment as differences in need among individual communities may make, but nevertheless, it is a convenient yardstick for comparisons. Only two of the six suburbs have more than 10 acres of park, playground, and schoolground per 1,000 population (Table 8). These are Mount Prospect and Barrington with 12.7 and 12.4 acres respectively. Actually by far the greater part of the park area in Mount Prospect is only dedicated and not suited for present use. The others are all below 6.7 acres per 1,000 population which was the average of 114 suburban communities in the Chicago area in 1938.³ Park Ridge has only 1.5 acres per 1,000 population. In all of the six suburbs except Mount Prospect and Barrington the playground and schoolground acreage exceeds the park acreage. There is clearly a major shortage of park area rather than playground area. Furthermore, a large portion of the park area in Des Plaines and Arlington Heights borders the railway stations and faces the business streets. This park space adds greatly to the attractiveness of the commercial neighborhoods but fails to render much recreational service to the residential neighborhoods of the suburbs. (For distribution of parks see Fig. 7.)

Suburban institutional pattern.--The kind and distribution of institutions in suburban communities are important factors in attracting and holding residents. The more significant institutional types from the residential viewpoint appear to be schools

¹Chicago Regional Planning Association, A Charted Summary of Typical Zoning Ordinances in the Region of Chicago (Chicago: Chicago Regional Planning Association, 1937).

²Chicago Regional Planning Association, Parks and Playgrounds in the Region of Chicago (Chicago: Chicago Regional Planning Association, 1938), p. 1.

³Ibid.

TABLE 8

PARK ACREAGE IN THE PARK RIDGE - BARRINGTON SUBURBS^a

Suburb	Area in Acres				Acres of Total Park per 1,000 Persons
	Parks	Play-grounds	School-grounds	Total	
Park Ridge.....	7.1	6.5	5.0	18.6	1.5
Des Plaines.....	14.5	...	23.5	38.0	4.0
Mt. Prospect.....	14.5	2.0	5.3	21.8	12.7
Arlington Heights	12.0	...	23.5	35.5	6.3
Palatine.....	2.0	...	10.0	12.0	5.4
Barrington.....	42.0	...	2.0	44.0	12.4

^aRecords of Chicago Regional Planning Association, revised 1941.

and churches. Of much less significance are libraries and hospitals.

Three different types of schools are represented in these suburbs, as in most communities. These are public grade schools, public high schools, and private schools. The more numerous public grade schools have a distribution among the suburbs that is roughly proportionate to population size, with Mount Prospect, Palatine, and Barrington each having one; Arlington Heights, two; Des Plaines, four; and Park Ridge, five. The distribution of schools within each suburb reveals that certain sections of the residential areas do not have convenient access to them (Fig. 7). This is especially true in Arlington Heights, a suburb which occupies an area about the size of Park Ridge with less than half the population. Certain of the outer neighborhoods are much farther than one mile from the nearest grade school. Schools of Park Ridge and Des Plaines serve smaller districts. Convenient schools are lacking at Des Plaines for the Cumberland neighborhoods to the northwest and at Park Ridge only for the extreme corners of the suburb most of which are sparsely settled. Mount Prospect and Palatine, each with small populations, need no more than one school each. This means, however, that residences in

certain of the sparsely settled subdivisions are a long distance from school. A further disadvantage is that children on the south sides of both suburbs must cross the railroad tracks. Barrington is almost large enough for two schools but has only one. The lesser developed western, northern, and eastern quarters of the village are farther from school and also have the railroad crossing hazard.

The suburban private schools are all parochial schools with one exception. They supplement the public grade school system and to a certain degree preclude the necessity for its further expansion, since each of the suburbs possesses at least one parochial school. Each of the suburbs except Barrington has a Lutheran school, and only Mount Prospect and Palatine lack Catholic schools.

Not all of the suburbs have local high schools. Park Ridge and Des Plaines share the large Maine Township High School, which is located between them on Dempster Road (Fig. 7). Mount Prospect and Arlington Heights share the Arlington Heights Township High School, which is located in the latter suburb. Palatine Township High School is in Palatine, and in Barrington the local school district maintains a four-year high school in the same group of buildings used for the grade school. All of these secondary schools except Barrington High School are accredited by the North Central Association of Colleges and Secondary Schools.¹ In addition to these four-year high schools there is a public junior high school in Des Plaines, and ninth grade instruction is offered also by St. Mary's of the Cross Catholic School in Des Plaines.

Some evidence of the interest of the communities in church life and of the variety of religious affiliation available to residents of the suburbs and surrounding country is revealed in the facts that among the suburbs 14 different religious denominations exist with 40 active churches.² Des Plaines has the largest number with 10 churches, and Mount Prospect, the smallest number

¹"List of Accredited Secondary Schools, Illinois," The North Central Association Quarterly, XVI (July, 1941), 80-90.

²Chicago Church Federation, Nineteen Hundred Forty Year-book and Directory (15th ed.; Chicago: Chicago Church Federation, 1940) and field work.

with 3 churches. The Lutheran Church is represented in every suburb by one or more churches, and the Methodist Episcopal and the Roman Catholic in every suburb except Mount Prospect. The Evangelical and the Evangelical and Reformed Churches have 5 churches distributed in 4 suburbs. The Church of Christ, Scientist is represented also in 4 suburbs. Of the other 7 denominations none have more than 2 churches.

Public libraries constitute an asset often of considerable importance to community life. All the suburbs possess public libraries, Park Ridge even having a branch library to serve the south part of the city. Hospitals are less common and less necessary for smaller suburbs. Small emergency hospitals are located in Des Plaines, Mount Prospect, and Palatine.

Suburban local improvement pattern.--Local public improvements, including water systems, sewerage systems, and paved streets, are almost indispensable requirements for suburban as well as urban residential areas. In maturely developed suburban neighborhoods dwelling structures are so closely spaced that individual wells, individual sewerage disposal systems, and unpaved streets are highly unsatisfactory. Close spacing of wells may result in lowering the water table and insufficient water. The fire hazard is increased by close spacing of structures and is doubly acute in neighborhoods lacking water pressure systems. Individual sewage disposal systems are unsatisfactory because of the danger of pollution to nearby well water. Also, lack of sewer mains to carry off storm waters often means that lower homesites may be flooded frequently. The major difficulty with unpaved streets in closely occupied suburban neighborhoods is that good maintenance proves almost impossible and certainly uneconomical in view of the aggregate traffic. Evidence that these facts are recognized in the suburbs of the Park Ridge - Barrington Area is provided by Table 9, which shows the percentages of residential blocks in each suburb which are served by each of the three types of improvements. More than half of the blocks in each suburb with the exception of Palatine are served by all three improvements.

The differences between the suburbs in proportion of area served by local improvements are an interesting feature of Table 9. The larger two suburbs, which also are nearer to the city--namely, Park Ridge and Des Plaines--have more of their blocks served by local improvements than do any of the other suburbs. Apparently

local improvements are expanded more lavishly in the nearer-in suburbs due to expectations of earlier occupancy.

From the standpoint of land area serviced in each suburb by the different improvement types, public water systems stand first; sewerage systems, second; and paved streets, third. The explanations are simple. A water system is ordinarily the most desirable improvement, and both water and sewer mains should be laid before streets are paved. The much higher cost of paving streets also operates to place a more conservative limit on street paving expansion. Further reasons for the greater extent of areas served by water and sewerage systems lie in the technical problems of their installations, which require compact distribution patterns for efficient operation. For a water system a compact distribution area facilitates the maintenance of pressure. For a sewer system mains beyond the settled area served may be required simply to co-ordinate the system and assure gravity flow.

From the high percentage of land area serviced by local improvements in the Park Ridge - Barrington suburbs and the rather low density of residential use, it might be inferred that very few residences are without local services. The truth of such a conclusion is brought out by Table 10, which shows the number of occupied residential blocks without local improvements, by suburbs. These blocks are relatively very few in number. Practically no occupied blocks lack public water, and only a single large group of blocks lacks both sewerage and paving. These blocks form a recently settled subdivision in northwest Des Plaines known as Cumberland Terrace (Fig. 9), a subdivision which already has experienced difficulties as the result of its lack of a public sewerage system. It is clear that suburban residences without local improvements are unsatisfactory.

The variations in the character of the local improvements in the suburbs may exert an influence on residential growth, although it would be exceedingly difficult to measure their effect in most cases, and little attempt has been made to do so. Some of the differences are presented to indicate the many facets of the problem requiring analysis in a complete investigation of the local improvement pattern.

The public water systems of five of the suburbs carry water from deeprock wells, while the sixth, Park Ridge, uses lake water secured from Chicago. Differences between the suburbs exist

in the physical and chemical quality of the waters,¹ storage facilities,² pressure maintenance,³ and water rates and charges.⁴

Fundamental differences exist in the manner in which the sewerage problems of the different suburbs are handled. For four of the suburbs, Park Ridge, Des Plaines, Arlington Heights, and Palatine, single sewer systems serve a double purpose, combining storm and sanitary functions. As a result, whenever there is excessive storm run-off, some pollution of nearby streams results.⁵ It is possible that a double system never will be required, since all of the four suburbs except Palatine have fairly level sites and are subject, therefore, to slow run-off. Barrington, on the other hand, because of its undulating terrain has experienced considerable difficulty with its sewage disposal problem and was forced by legal action to construct a separate storm-water system and a modern sewage treatment plant.⁶ Arlington Heights and Palatine possess individual treatment plants, while sewage treatment for Park Ridge and Des Plaines is taken care of by the Sanitary District of Chicago within whose boundaries the latter two suburbs lie. Mount Prospect, alone, lacks a sanitary sewer system, although it does possess a system of storm sewers. Sewage disposal in this village is cared for by individual septic tanks in connection with each dwelling or business structure. Residential use density in Mount Prospect is sparse (Fig. 2), but if building continues at its present rate, a public sanitary sewerage system may be required before very long.

¹Illinois State Division of Sanitary Engineering, Data on Illinois Public Water Supplies (Springfield: State of Illinois, 1938).

²Chicago Board of Underwriters, "Complete Town Reports and Reinspection Reports on Fire Protection. Park Ridge, Des Plaines, Mount Prospect, Arlington Heights, Palatine, and Barrington," Chicago, 1938-1942.

³Ibid.

⁴Illinois State Division of Sanitary Engineering, op. cit.

⁵Statement by Mr. John W. Towne, Engineer of Sanitary District of Chicago, personal interview.

Also, Illinois State Sanitary Water Board, Inventory of the Pollution of Salt Creek and Its Tributaries, A Tributary of Des Plaines River and Recommendations for the Abatement and Prevention of Pollution (Springfield: State of Illinois, 1932), p. 4.

⁶Statement by Mr. John H. D. Blanke, Village Engineer and Trustee at Barrington, personal interview.

TABLE 9

PERCENTAGE OF RESIDENTIAL BLOCKS SERVICED WITH
LOCAL IMPROVEMENTS, BY SUBURBS^a

Suburb	By Water	By Sewerage	By Paving	By All Three
Park Ridge.....	96	96	85	79
Des Plaines.....	91	80	74	73
Mt. Prospect.....	80	77	57	54
Arlington Heights..	68	72	60	51
Palatine.....	90	69	47	38
Barrington.....	89	71	67	55

^aManuscript maps prepared by the author.

TABLE 10

NUMBER OF OCCUPIED RESIDENTIAL BLOCKS WITHOUT
LOCAL IMPROVEMENTS, BY SUBURBS^a

Suburb	Without Water, Sewerage, and Paving	Without Sewerage and Paving	Without Water and Paving	Without Paving	Without Sewerage	Without Water
Park Ridge...	1	0	0	5	1	0
Des Plaines..	1	17	0	3	0	1
Mt. Prospect.	0	0	1	3	0	0
Arlington Heights....	8	0	5	5	2	0
Palatine.....	0	6	0	7	3	0
Barrington...	1	11	0	8	0	0
Total...	11	34	6	31	6	1

^aManuscript maps prepared by the author and Fig. 2.

Between the suburbs little difference has been observed in the quality of paved streets. They are predominantly asphaltic in construction, but a trend toward concrete construction is noted in the later additions to the systems. Associated with street paving but much less extensive in coverage are sidewalks and street lighting.

Transportational pattern.--Three transportational types function in the Park Ridge - Barrington Area--the steam railroad, the private auto, and the motor bus. A brief survey of certain aspects of the pattern of these types and an evaluation of their relation to the residential pattern follow.

Commutation railway transportation is available for the entire Park Ridge - Barrington Area, but local differences in access to stations, frequency, time, and cost of services exert influences on settlement growth. The Wisconsin division of the Chicago and North Western Railway is the single most important traffic artery with all suburbs being bisected by the tracks of this line. Eight stations serve the suburbs, and data on the service they offer is presented by Table 11. In the four inner suburbs the stations are spaced closely with no interval much more than two miles (Table 11 and Fig. 7). On the basis of number of trains available to and from the city during rush hours Des Plaines, Park Ridge, and Barrington have better than average service, and the sub-stations, Dee Road in Park Ridge and Cumberland in Des Plaines, have poorer service. Mount Prospect, Arlington Heights, and Palatine have a frequency of service intermediate between the above groups. The average time required to go to or from downtown Chicago increases from an average of 28 minutes for Park Ridge to 56 minutes for Barrington. Each of the stations except Dee Road, Mount Prospect, and Palatine, however, has one train in the mornings which is a non-stop express to the Chicago terminal, and the times made by these trains are very much shorter than the average. The monthly commutation fare (54-ride monthly individual) increases from \$7.60 for Park Ridge to \$11.05 for Barrington. If the fares were in ratio with the mileage, Barrington commuters would be required to pay over \$18.00. Actually, the Barrington rate is only a little over twice what city commuters pay who ride the elevated lines. It would appear that the rate differentials for the outer suburbs are not large enough to affect suburban development except for the low income groups. On the basis of

TABLE 11

NORTH WESTERN RAILWAY SERVICES AND FARES FOR
PARK RIDGE - BARRINGTON STATIONS^a

Railway Stations ^b	Distance from City (Miles)	No. of Total A.M. and P.M. Trains ^c	Aver. Time Required To or From City ^d (Minutes)	Fares		Time Required by Express to City (Minutes)
				54-Ride Monthly	Round-trip	
Park Ridge..	13.1	19	28	\$ 7.60	\$0.50	22
Dee Road....	14.6	6	35	7.85	.55	...
Des Plaines..	16.6	21	35	7.95	.65	27
Cumberland..	18.1	8	34	8.10	.70	30
Mt. Prospect	19.7	12	37	8.30	.75	...
Arlington Heights...	22.4	13	41	8.80	.85	32
Palatine....	26.1	12	48	9.85	1.00	...
Barrington..	31.6	17	56	11.05	1.20	37

^aSuburban Service Schedule for Wisconsin Division of Chicago and North Western Railway, corrected to May 27, 1940. Seasonal changes in the schedule are very slight.

^bFor location see Fig. 7.

^cNumber of trains arriving at Chicago terminal 7:00 to 9:00 A.M. and leaving Chicago terminal 4:30 to 6:30 P.M.

^dAverage time of trains arriving at Chicago terminal 7:00 to 9:00 A.M. and leaving Chicago terminal 4:30 to 6:30 P.M.

average family expenditure for transportation in Chicago the lowest annual-income-class family which could afford the commutation fare to Barrington would be in the \$1,750 - \$2,000 group.¹

Highways within the Park Ridge - Barrington Area seem to be adequate for the commuter traffic carried. Paralleling the

¹This group spends 7.8 per cent of total income or \$141 (out of \$1,750) annually for total transportation. (The annual commutation cost for Barrington is \$132.60.) From U. S. Bureau of Labor Statistics, Family Expenditure in Chicago, 1935-36, Bulletin No. 642, Vol. II (Washington: Government Printing Office, 1939), p. 55.

Wisconsin division for its entire length from Park Ridge to Barrington and beyond is U.S. Highway No. 14, known over most of the distance as the Northwest Highway. This four-lane thoroughfare traverses the commercial neighborhoods of all the suburbs except Palatine and Barrington where in each case it turns away from the railway and around the northeastern edge of the suburb. Second in importance of highways serving the area is four-lane U.S. 12 which is known as Rand Road beyond Des Plaines. U.S. 12 and U.S. 14 meet at the center of the Park Ridge business district (Fig. 7). With U.S. 12 extending due northwest and U.S. 14 paralleling the railroad in the point-of-compass direction of northwest-by-west, the distance between the two roads is ever widening. At Des Plaines and Mount Prospect U.S. 12 only touches the suburban limits. Beyond Mount Prospect it touches no suburb until it enters Lake Zurich northeast of Barrington. Despite the fact that it does not enter the outer suburbs, it serves as a very convenient traffic artery into Chicago, relied on heavily by auto commuters. Traffic carried on the two thoroughfares is approximately equal and much greater than traffic carried on other roads leading into the city.¹

Motor bus transportation for commuters is important locally in Park Ridge, Des Plaines, and Barrington communities. The United Motor Coach Company, located in Des Plaines, operates fifteen routes in the Park Ridge - Des Plaines district, serving most parts of the suburbs and many of the rural subdivisions. Additional routes run to Barrington, to Rogers Park (northernmost community in Chicago bordering the lake), and into northwest Chicago to the Milwaukee Avenue street car line. Only two buses run to Barrington daily, but frequent service is given into the city. Of approximately 6,000 daily passengers about one-fourth are school children, and a major portion of the remainder are commuters. Many of the commuters use the bus to reach the nearest railroad station; others go by bus to work in northwest and north Chicago (Table 4).² Bus service in the Barrington - Palatine lo-

¹Illinois State Division of Highways, Traffic Map of Chicago Metropolitan Area, Prepared in co-operation with U.S. Bureau of Public Roads from data collected by State-wide Highway Planning Survey of 24-hour traffic volumes in 1938 (Springfield: Illinois State Division of Highways, 1939).

²Information from United Motor Coach Company Bus Time

cality by the Bud Henry Motor Company of Barrington is of recent origin. One line carries Barrington children to the Lutheran school in Palatine and Palatine children to the Catholic school in Barrington. Another line runs north to Wauconda on Barrington Road and was established to serve the rural residents, particularly those in Barrington-Biltmore Estates (Fig. 9) and Tower Lake subdivisions (north of Barrington-Biltmore). A third line to Elgin was placed in operation most recently.¹ A private bus service is operated between the new unincorporated community of Prospect Heights and the railway station in Mount Prospect. Special school bus lines also are operated for the high schools in Arlington Heights and Palatine.

Of the three transportation types in the area the private auto is today the most important (Table 4). Since most of the suburban streets are paved and concrete highways thread the rural area, convenient access to public transportation is no longer a limiting factor in the origin and development of commuter-residential land use. Improvements in rail and bus commutation service do not precede residential growth but rather tend to lag behind, and better services are offered only when demand appears adequate to cover the risk involved. Quality of rail and bus transportation is a function of total commuter population rather than the opposite. In other words, many commuters are willing to forego better rail and bus transportation if other residential factors are favorable, and abundant illustration of this principle may be found in recent settlements of the rural area adjoining the Park Ridge - Barrington suburbs.

The effect of the layout of rail lines and streets on the structure of the residential pattern is another aspect of the transportation pattern deserving attention. Adjacency to railway tracks has never been considered a residential asset, and the generally sparse and poorer quality residential land use facing the tracks in the Park Ridge - Barrington Area is apparent from the maps of residential character (Figs. 2, 3, 4, and 5). In Des Plaines and Barrington railroad intersections have intensified the

Tables, August 1940, and from Leonard E. Manuel, General Manager at Des Plaines, Illinois.

¹Information from Bud Henry, Owner and Manager of Bud Henry Motor Company at Barrington, Illinois.

adverse effects. Other railway lines crossing at Des Plaines are the main line of the Minneapolis, St. Paul, and Sault St. Marie Railroad and a branch freight line of the Chicago and North Western Railway which connects the Wisconsin division with the Galena division and the Milwaukee division. The Elgin, Joliet, and Eastern Railroad, known as the Chicago Outer Belt Line, crosses at Barrington. Des Plaines, divided into six sectors by the railroads, occupied only three until within the last fifteen years when the Cumberland subdivisions initiated settlement in the two northwest sectors. Barrington has four sectors, one of which possesses only a few blocks of suburban occupancy.

The early federal land survey, completed in 1840,¹ divided the Park Ridge - Barrington Area into township, range, and section divisions, so familiar in most of the United States, and set the basic north-south and east-west pattern for streets and highways. Curvilinear streets and other characteristics of modern subdivision platting largely are lacking. The local street patterns of the Park Ridge - Barrington suburbs are predominantly rectangular and oriented north and south. This pattern is, of course, interrupted by the railways and U.S. Highways 14 and 12. Several suburban subdivisions have been laid out with curved streets, not to conform with the topography which is so largely level but evidently to offer variety. Park Ridge, Des Plaines, Mount Prospect, and Barrington each have one of these subdivisions with curved streets. Arlington Heights has two, but almost all the streets of Palatine are straight. Rural subdivisions also have been laid out on predominantly rectangular lines with a few exceptions such as Inverness northwest of Palatine and Barrington - Biltmore Estates north of Barrington.

Section 2. Land Use Patterns of the Park Ridge - Barrington Rural Area

In the analysis of land use patterns of the rural area adjoining the Park Ridge - Barrington suburbs the objectives, as in the study of the six suburbs, are twofold: (1) to describe the distribution of the various kinds and qualities of residences,

¹A. T. Andreas, History of Cook County, Illinois, From the Earliest Period to the Present Time (Chicago: A. T. Andreas, 1884), p. 340.

both farm and non-farm, and (2) to relate the residential pattern to other patterns of land use.

Agricultural Residence Pattern

The basic pattern in the rural mosaic of residential land use is set by the farmsteads. While in many places throughout the Park Ridge - Barrington rural area the basic pattern almost has been obliterated by the encroachment of other rural land uses, in other places it still gives the dominant character to the landscape.

Residential quality of agricultural residences is somewhat better in the outer dairy farming portion of the Park Ridge - Barrington Area than in the inner truck farming portion. The boundary between truck farming and dairy farming is not distinct. Rather, there is a wide transition zone in the vicinity of Arlington Heights and Mount Prospect. The typical truck farming dwelling is a plain though fairly well-constructed frame bungalow, thirty to forty years old. It is badly in need of paint; the surrounding shrubbery is scraggly and untrimmed; and the general aspect of yards, garage, and sheds is one of deterioration. The maintenance of some units is better, but the majority are definitely declining in residential quality. In contrast, the typical dairy farm dwelling is a frame two-story house, and while in need of paint in some instances, in the majority of cases is well-painted, tightly roofed, and neatly landscaped.

The quality of agricultural residences in the dairy farming belt is rising. The improvement is resulting from the purchase of many dairy farms by wealthy Chicagoans as so-called "gentlemen farms." As such they receive special improvements beyond what the ordinary dairy farmer can afford. On the other hand, the decline of truck farming is encouraging other less attractive types of commercial agriculture in its place and accentuating the difference in residential quality between the inner and outer portions of the rural area.

Among the commercial agricultural types associated with truck farms are onion-set farms, mushroom sheds, floral green-houses, nurseries, and poultry farms. Onion-set farms and their dwellings are indistinguishable generally from truck farms and are localized around Mount Prospect¹ and Des Plaines. Residences

¹Evidence of the localization, other than the farms them-

connected with mushroom sheds, greenhouses, and nurseries vary in quality but commonly are poor to mediocre. The distributions of greenhouses and mushroom sheds are indicated in Figure 7. The largest cluster of greenhouses is immediately west of Park Ridge while a similar concentration of mushroom sheds lies at the north edge of Des Plaines. Nurseries are few in number. Poultry farms are numerous and more widely distributed than the other special types. They also vary greatly in size and in intensity of use. Two large turkey farms are located near Palatine, and numerous small chicken farms are present in the Palatine district as well as in the inner truck farming belt. Some of these farms are long narrow lots sold in subdivisions while others are separate parcels sold off from adjoining truck or dairy farms. Residences vary in quality. While houses are newer than those found on the larger farms, they are commonly of poor construction and of careless upkeep.

Part-time garden, poultry, or general farming also appear in the area and are especially notable in the vicinity of Palatine. Unit size may vary from one or two acres to many times that size. From the residential standpoint quality is low with either old farmhouses or poorly constructed and maintained houses of later origin.

Non-agricultural Residence Patterns

Non-agricultural residences in the rural pattern broadly consist of two types, subdivision dwellings and dwellings on unplatted land.

Rural subdivision dwellings.--Subdivision dwellings in the rural area are more numerous and much more concentrated in their distribution than the dwellings on unplatted land. In understanding the residential pattern made by rural subdivisions, it is useful to divide the Park Ridge - Barrington rural area into four districts. These are: (1) the Park Ridge - Des Plaines or Maine (township) district, (2) the Mount Prospect - Arlington Heights or Prospect Heights district, (3) the Palatine district, and (4) the Barrington district, with the names suggesting the general boundaries of each. The Maine and Palatine districts

selves, is provided by a large onion-set warehouse at Mount Prospect.

each possess a large number of subdivisions and subdivision groups. In contrast, the Prospect Heights and Barrington districts have very few, but among these few one group stands out in each district for areal size and residential use density. There follows a description of each of the four districts in terms of residential items mapped in the field survey.

The Maine district has 18 separate subdivisions or subdivision groups distributed irregularly about the suburbs. The average size of their lots is less than a half acre. The great majority of the blocks in the subdivisions are of Class 2 residential use density or less than half occupied (Fig. 2). As to size of dwelling, about half of the subdivisions have houses of less than five rooms, and hardly any have more than six rooms. One story and one and a half story houses predominate with construction and design of the greater part of the subdivision units of low quality (Fig. 4). Many of the homes have been constructed by the occupants and exhibit the lack of skill and artistry of the untrained craftsmen. A major portion of the district has medium quality upkeep and landscaping (Fig. 5). Gardening and poultry raising are common but not characteristic of the majority of the subdivision units. These subdivision units represent recent growth (Fig. 3), and further construction of like quality is proceeding within their borders at present.

The dominant rural development in the Mount Prospect - Arlington Heights district is Prospect Heights, a fast-growing settlement of good quality but not costly residences. Prospect Heights lies directly north of Mount Prospect and faces both sides of Elmhurst Road. This unit has an area of about 400 acres which is divided into blocks about twice the size of the ordinary city block. Many of the lots are 300 feet deep and have an area of somewhat less than an acre. A few lots are used as small, part-time poultry farms, but the greater number have only small gardens and no chickens. The compactness of the occupancy in the longer subdivided portions is especially notable (Fig. 2). The dwellings have five or six rooms, and all have been erected during the last four or five years (Fig. 3). Construction and design of most residences are of relatively high quality (Fig. 4) with upkeep and landscaping of medium quality (Fig. 5). Six other subdivision units in the Prospect Heights district lie west of Prospect Heights and north of Arlington Heights. Density of their occupancy is ir-

regular and quality is generally poor. Fundamentally they are similar to the subdivisions of the Maine district. The few subdivisions south of the villages are almost completely undeveloped.

The area of rural subdivisions is greater in the Palatine district than in any of the others. While distributed widely over the township, the larger units either adjoin or are nearby the village of Palatine. The size of lots or homesites is larger on the average than in the Maine district. The function of the homes in these subdivisions in general is slightly different from the Maine subdivisions because of the widespread practice of raising chickens and cultivating gardens. In a few cases in many of the subdivisions poultry raising appears to be a family occupation of some importance. The majority of the blocks in these subdivisions fall into Classes 2 or 3 residential use density with a large number of blocks completely unoccupied and very few more than half occupied (Fig. 2). Most of the dwellings have less than five rooms and were built in the late nineteen-twenties (Fig. 3). Construction and design are of poor quality in most blocks (Fig. 4), and poor upkeep and landscaping conditions are only slightly less extensive (Fig. 5). A major exception to the above description is the high quality group of subdivisions at Inverness which lies northwest of Palatine (Fig. 2). This settlement has been laid out adjoining a private country club and is being built up with distinctive and costly homes.

Barrington-Biltmore Estates, covering 880 acres in the lake country north of Barrington, is outstanding not so much for its present occupancy as for its size and future possibilities. Large homesites, curved streets fitted to the rolling terrain, adjacent lakes, and a private country club are major attractions. The existing dwellings are widely spread, resulting in low residential use density (Fig. 2), but new construction is changing this pattern. The first dwellings in this community were built during the late twenties as summer residences, but most of these have been remodeled into year-around structures. Recent construction shows itself in the pattern of dwelling age (Fig. 3) and likewise in the patterns of quality (Figs. 4 and 5). Both construction and design are distinctly of high quality in the newer structures.

Other subdivision settlements in the district are even more sparsely occupied but are interesting for their varying characters. Two miles north of Barrington-Biltmore Estates is the

Tower Lake group of subdivisions (beyond the mapped area) which possesses some year-around dwellings of medium quality, although summer residences are predominant. Summer cottages are also typical of the subdivisions adjoining Lake Zurich village to the east. The sparsely settled subdivisions fringing the village of Barrington, although not of the summer resort type, are low in quality. Other subdivisions in the district contain several acre estates rather than the conventional lots, but these have as yet few occupants.

The major descriptive facts concerning the four districts require added emphasis in summary. The Maine district is developing an irregular pattern of low quality subdivisions with a few minor exceptions of better use. At Prospect Heights a promising settlement is located, but it is almost alone in this district. Occupancy in the Palatine district is somewhat older and in quality is no better than what is found in the nearer-in Maine district, with one exception, the distinctive Inverness settlement. The subdivision dwellings in the rural Barrington district are not very important with the exception of thinly-settled but attractive Barrington - Biltmore Estates.

Non-farm dwellings on unplatted land.--The distribution of non-farm dwellings on unplatted land is indicated in Figure 2, the map of residential use density. Three functional dwelling types may be distinguished in this group. They are: (1) individual dwellings associated with some other use, such as stores or churches, (2) individual dwellings or clusters of dwellings for purely residential purposes or for part-time farming, and (3) individual country estates without farming. Members of the first group are more numerous along Milwaukee Avenue, Rand Road, and Algonquin Road, coinciding with the pattern of commercial use. These dwellings are almost all low to medium in quality. The second group is scattered more or less evenly from Park Ridge to Palatine, and in quality and function its residences resemble those of the rural subdivisions. The third group is found exclusively in the Barrington district, and its dwellings are large, well designed and constructed, and located on homesites which are several acres in size. All three groups have experienced their major growth during the last ten or fifteen years.

Other Rural Patterns in Relation to the Residential Patterns

Among the rural land use patterns which have exerted notable differential effects on rural residential use are those of commerce, recreation, institutions, and local improvements.

Rural commercial pattern.--Commercial land use in the rural area may be divided into two types: (1) that type which serves the local community and (2) that type which serves the traffic on the highways.

Rural stores for local trading have had little influence on residential growth in the Park Ridge - Barrington rural area. The rural residents must depend almost altogether on the suburbs or on Chicago for necessary purchases, since there are within the rural area only four small food stores, one small general store, one feed store, and one farm machinery shop,¹ with the exception of the limited but carefully planned commercial center in the unincorporated suburban settlement of Prospect Heights.

The effect of highway commercial development on rural residential use has been largely negative in character. Attractive residential growth adjoining the well-traveled thoroughfares has been discouraged by the motley commercial uses. Of the commercial land uses serving motor traffic the more numerous are filling stations, eating places, taverns, and vegetable stands. Almost all are distributed along six major highways, namely Milwaukee Avenue, Rand Road, Northwest Highway, Algonquin Road, Higgins Road, and River Road, with the majority at or near highway intersections. Filling stations have a distribution pattern typical of the others (Fig. 7). Larger numbers of these uses are found along Rand Road, River Road, and Milwaukee Avenue which with the Northwest Highway carry the greater flows of traffic.² Ribbon commercial development along the Northwest Highway has been restricted to some degree by residential land use and by suburban zoning regulations. Further extension of the ribbon commercial type in the rural area is now strictly limited by the recent enactment of rural

¹Cook County Zoning Commission, "Land Use Survey of Cook County, 1940" (Manuscript maps on file at the office of the Chicago Regional Planning Association).

²Illinois State Division of Highways, Traffic Map of Chicago Metropolitan Area.

zoning in Cook County,¹ which provides for only 62 business spots at highway intersections within the Park Ridge - Barrington rural area. Other less numerous but equally obnoxious commercial uses, as far as residential growth is concerned, are poultry markets, dog kennels, repair garages, florist shops, tourist cabins, airports and flying schools, and commercial recreational uses such as gun clubs, golf driving ranges, picnic grounds, and riding stables. Most of these uses are poorly housed and unattractively landscaped so as to discourage good residential land use nearby, but on the other hand they almost all lie on major traffic arteries which in themselves discourage adjoining residential land use.

Rural recreational pattern.--Three land use types of rural recreation are represented: (1) county forest preserves, (2) golf courses, and (3) commercial recreational spots (Fig. 7). All serve a wide area with many, and in some cases most, of the patrons coming from Chicago. This is particularly true of county forest preserves, daily-fee golf courses, riding stables, picnic grounds, and the Arlington Park Race Track.

The forest preserves, separated into three parts, are more extensive in area and probably serve the greater number of people. The largest division lies along the Des Plaines River and is divided into a number of so-called groves, woods, and preserves with some of the forest lying within the city limits both of Park Ridge and Des Plaines and adding to the attractiveness of the suburbs. The large Elk Grove Forest Preserve lies south of Arlington Heights about two miles, while the Deer Grove Forest Preserve adjoining the Cook-Lake county line is northwest of Palatine. These large well-maintained preserves would appear to be a very favorable background for adjoining residential settlements, but from the maps (compare Figs. 2 and 7) it can be seen readily that they have had little influence.

In contrast, several of the better subdivisions have been developed on land adjacent to golf courses, partly for their recreational offering and partly to take advantage of their carefully groomed scenic beauty (Figs. 2 and 7). The Inverness settlement has been built around the Inverness Country Club, a private

¹Zoning Ordinance of Cook County, Illinois, approved and adopted by the Board of Commissioners of Cook County, August 20, 1940 (Chicago: Cook County Zoning Bureau, 1940).

course. Prospect Heights adjoins three golf courses, Rob Roy Country Club, Old Orchard Golf Course, and Rolling Green Country Club, of which the first two are daily-fee courses. Like Inverness the Barrington - Biltmore Estates were laid out around a golf course--in this case, the private Biltmore Country Club. The Park Ridge Country Club and the Mount Prospect Country Club both lie within municipal limits and adjoin good quality residential neighborhoods. The former is a private club. Another course closeby Barrington is the Barrington Hills Country Club, the private club of the "country gentlemen." Other daily-fee courses within the Park Ridge - Barrington Area are Dempster Golf Course and Pickwick Golf Course, both north of Park Ridge, and Greenvew Golf Course, southwest of Park Ridge. There are not a few other golf courses in north Cook County and Lake County which are easily accessible to residents of these suburbs.

Arlington Park Race Track, located south of the Northwest Highway between Arlington Heights and Palatine, is most outstanding in the Chicago area and one of the finest in the United States (Fig. 7). The main grandstand, which seats over 40,000 people, faces south toward slightly rolling farming country which forms a scenic background during the racing season of July. Despite the beautiful landscaping of the park and grounds the track is a handicap to nearby residential development largely due to the tremendous traffic in the vicinity during the racing season. Other commercial recreational land uses, including gun clubs, golf driving ranges, picnic grounds, and riding stables, are located along the major highways. Only riding stables are very numerous, and almost all of these are located near the edge of the Des Plaines River forest preserves to take advantage of the public riding trails (Fig. 7). In most cases the stables adjoin other commercial uses or farms and do not harm residential development seriously.

Rural institutional pattern.--The rural distribution of public grade schools appears to have little to distinguish itself, as the schools are spaced in a fairly regular pattern (Fig. 7). They do vary in size and in responsibility for providing instruction. Many of the schools, located in districts of recent rapid expansion, lack both adequate equipment and financial support.¹

¹The conflict between rural residents and farmers in a

The same high schools serve the rural area as serve the suburbs. In the Barrington country estate and gentlemen farming area lies a non-high school district from which many of the children are sent to the private, twelve-grade Country Day School immediately west of Barrington.

There are five large Roman Catholic institutions in the Park Ridge - Des Plaines district, each of which serves a different purpose. These are: Sacred Heart Villa in Park Ridge, the Croatian Orphanage east of Des Plaines, St. Mary's Training School and the Sisters of Nazareth Convent, both north of Des Plaines, and St. Patrick's Academy south of Des Plaines and west of Park Ridge. These institutions have strong ties with Chicago, as is evidenced by their bus transportation connections. Another charitable institution of note is the Camp Reinburg Cook County Welfare Camp adjoining the east edge of Deer Grove Forest Preserve. This is a summer outing camp for mothers and children who are recipients of public welfare in the county. Also within the rural area, but primarily serving the farm population, are eight small churches, three of which are Catholic.

Rural local improvement pattern.--Subdivided land within the rural area surrounding the six suburbs possesses neither public water nor public sewerage systems, and the only paved roads are federal, state, and county highways. Local improvements cannot be made under the assessment method, because a township government in Illinois has no authority to levy special assessments on property benefited by local improvements.¹ Individual wells and septic tanks serve water and sanitation needs, and because of larger lots and lower use density generally have proved satisfactory. In most subdivisions only the settled portion has hard-surfaced, all-weather roads. In not a few subdivisions isolated dwellings or small groups of dwellings are served only by ungraded dirt roads. The original surfacing of the streets in most

section of the rural-urban fringe of Washington, D.C. is presented pointedly by Omer L. Hirst, "City Growing Pains in the Country," Land Policy Review, III (May - June, 1940), 20-25.

¹For a statement concerning local governments authorized to levy special assessments in Illinois see Illinois State Tax Commission, Special Assessment Financing of Local Improvements, 1925-1937, Survey of Local Finance in Illinois, Vol. VI. Prepared in co-operation with the Work Projects Administration (Chicago: State of Illinois, 1940), p. 22.

places has been provided by the subdivider, but the maintenance of the roads is a responsibility of the local townships.

Section 3. The Influence of Metropolitan Factors
on the Future Growth of the Park
Ridge - Barrington Area

The growth of residential land use within suburban extensions is determined partly by local factors and partly by factors which are beyond the control of local interests. In this section an attempt is made to recognize the major trends of metropolitan development in the Chicago area and so far as possible to understand the particular effects which they are exerting on the Park Ridge - Barrington Area. These trends are considered under the headings of transportation, urban blight, housing programs, city government and taxation, outlying shopping centers, metropolitan agriculture, industrial movements, and competing extensions.

Transportation

Improvement of suburban transportation service to and from Chicago involves both highways and railways. Total traffic is increasing¹ partly as the result of recovery from the recent economic depression and partly as the result of movement of population from the city to the suburban areas. The solution of the traffic congestion problem appears to lie in superhighways and improved rail service of all types.

The north and south outer drives bordering Lake Michigan within the City of Chicago represent the beginning of a superhighway system in the Chicago area. Plans for a comprehensive system of superhighways embracing both city and county have been proposed by the interested agencies, and their adoption in revised form may be expected in the not-too-far-distant future. The City of Chicago proposed plans include, in addition to the north and south drives, a northwest superhighway, two west superhighways, a southwest superhighway, and one crosstown superhighway connecting

¹An increasing commutation traffic is revealed by unpublished statistics of the Chicago and North Western Railway Passenger Traffic Department. Evidence of greatly increased highway traffic is illustrated by comparison of 1936 and 1938 traffic flow maps. See Illinois State Division of Highways, Traffic Map of Chicago Metropolitan Area (1936 and 1938 eds.; Springfield: Illinois State Division of Highways, 1937 and 1939).

all of the western radials. Of these western radials initial construction is proposed for the inner portions of both northwest and southwest superhighways and one of the west superhighways.¹ The Cook County proposed plans call for superhighways connecting with those of the city and several others in addition, all to be completed in a fifteen year period.² The Cook County Highway Department in its master superhighway plan for the county proposes that Higgins Road be made the superhighway of the northwest. Additional right of way along selected segments of Higgins Road already has been purchased and laid out. Other superhighways would be developed within the Park Ridge - Barrington Area to serve as major feeders. Golf Road west of its intersection with Higgins Road would be made a superhighway to connect Elgin with the system. Barrington and McHenry County would be connected by a superhighway west of Roselle Road. Another superhighway about half-way between Arlington Heights and Mount Prospect would cross Higgins Road and give these suburbs convenient access. Des Plaines would connect up by way of the River Road, and Park Ridge would have direct access since Higgins Road forms its southern limits.

A superhighway for the northwest suburbs would shorten markedly the time required for reaching the center of Chicago by auto. The time saving would be achieved largely through the proposed diagonal route within the limits of Chicago. The existing diagonal highways in northwest Chicago are at present little used by commuter traffic because of narrowness, street car lines, and heavy cross traffic. Instead, various east-west highways are used to reach the north outer drive now beginning at Foster Avenue.

The problem of transportation also must be observed in its relationship with the other suburban extensions. Were they to receive, as the result of a new superhighway system, even better transportation than the Northwest Extension, the positive advantage to the latter would be much lessened. Such would not ap-

¹City of Chicago, Department of Subways and Traction and Department of Superhighways, First Annual Report, 1939 (Chicago: City of Chicago, 1940), pp. 44-47.

²Cook County Highway Department, Highway Plan for Cook County and Detailed Study of Highway Plan for Cook County (2 vols.; Chicago: Cook County Highway Department, 1940). Also, Exhibit of Studies Made for the Northwest Superhighway (Chicago: Cook County Highway Department, 1940).

pear to be the case. The northwest and west sides of Chicago have suffered more in recent years from inadequate highway traffic arteries,¹ and the proposed highways would offer both sectors adequate relief.

That commutation rail service within each suburban extension will be improved only as the result of substantial increases in population and in number of commuters is the policy of the passenger traffic department of the Chicago and North Western Railway.² This railway is operating its suburban service at a loss, a financial experience reported to be true of certain other Chicago railways with suburban service. It is regarded as too great a risk for the railways to increase their service without subsidization solely in the expectation of attracting more commuters to settle in the suburban extension served. Railroad men further believe that better service would not attract enough commuters who now are using the auto to compensate for the additional cost. Since the Northwest Extension has increased its population during the past decade, it might be expected that there would be basis for improvement in service. Notwithstanding this population increase, the number of rail commuters has not reached even in 1940 the peak set in 1930. Therefore, any proposal involving large added expenditures for suburban service on the Wisconsin division is not likely to be considered soon.³

¹An excellent study made of Chicago traffic problems in 1932 stated that the "facts confirm the general public opinion that the west side of the City has been relatively neglected as compared with the northerly and southerly portions of the City" and that "these same facts indicate that the northwesterly portion of the City has the next most urgent need for relief." See City of Chicago, The Committee on Traffic and Public Safety, Limited Ways, A Plan for the Greater Chicago Traffic Area, A Report to the City Council of the City of Chicago by the Committee on Traffic and Public Safety, John A. Massen, Chairman with Miller McClintock, Consultant (Chicago: Committee on Traffic and Public Safety, 1933), III, 18.

²Information in this paragraph contributed by the office of Mr. R. Thomson, Manager, Passenger Traffic Department, Chicago and North Western Railway, interviews.

³The increase of North Western suburban traffic over the previous year is given for the three recent years: 1940 over 1939, 8 per cent; 1941 over 1940, 3 per cent; and 1942 over 1941, 10 per cent. Despite the recent upturn, which is the result of war restrictions effecting the use of autos, no improvements in service have been made or are contemplated by the railway. Indeed, no equipment is available or can be purchased for service improvements.

The effect that completion of a superhighway system in the Chicago area would have on existing rail commutation service should be considered. It seems clear that commutation service would have to be improved in every suburban extension, or the number of commuting passengers would decline, in some more sharply than in others. It is quite probable that the Northwest Extension would feel the effect more sharply, because the length of auto commuting travel to the center of Chicago would be shortened so much by the direct superhighway route.

Urban Blight

That urban blight is a powerful factor influencing the growth of suburban extensions needs no more evidence than the recent 1940 population census releases. Most of the central census tracts of Chicago, which include the blighted area, have declined again in population while the outer tracts and the suburban and rural districts have shown increases roughly proportionate to the losses of the center.¹

Since the Park Ridge - Barrington suburbs in general possess medium to good quality dwellings, their new residents are drawn largely from the better neighborhoods of Chicago. In contrast, many of the rural subdivisions in the area, as has already been shown, possess low quality dwellings of very recent construction and are settled by people who have come from the poorer or blighted neighborhoods of Chicago. Although a beginning of the lower quality type of rural residential development occurred in the real estate boom of the twenties (see Palatine Township in Figs. 3, 4, and 5), its great expansion in the Park Ridge - Barrington Area, as well as in the other suburban areas, is occurring at the present time. Such a development represents the result of search by urban citizens for decent, low-cost residences with minimum conveniences, a residential type evidently not available in sufficient quantity in Chicago for the demand. Low cost of land, low taxes, lack of building code restrictions, and larger lots appear to be major advantages of these residences. County zoning recently has placed

¹An excellent analysis of Chicago population trends in the light of the 1940 census has been made by the Chicago Plan Commission, Population Facts for Planning Chicago, Prepared by Homer Hoyt (Chicago: Chicago Plan Commission, February, 1942).

some restrictions on rural building which will act to prevent further development of those residential types which do not conform to certain minimum standards of use, health, and sanitation,¹ but this ordinance will not prevent the growth of poorly planned rural settlements of jerry-built dwellings. Already a new neighborhood type is developing around Chicago which may be called the open-spaced or rural slum. The indiscriminate spread of this type will exert a depreciating influence on nearby higher quality rural settlements and will greatly change the landscape appearance of present suburban extensions.

Housing Programs

The housing programs of federal, state, and local authorities have strong influences on suburban growth. Direct assistance of suburban building is contributed through the program of insuring mortgage loans on dwellings by the Federal Housing Administration. The dwelling and subdivision standards required by this agency have helped to promote better homes and better neighborhoods. By accepting mortgage insurance on new and well-constructed dwellings on a very favorable basis, the Federal Housing Administration has made the purchase of older and unimproved dwellings more difficult, so that the majority of insured loans have been made in the outer urban or suburban areas. Partly compensating for this activity has been the recent issuing of insurance on property improvement loans made largely in older neighborhoods.

Slum clearance and rebuilding, a program shared in by federal, state, local, and private agencies, only has begun in the Chicago area.² Should this movement grow in intensity, the trend toward decentralization might be stopped. It might even be reversed, if many of the people who have settled recently in the low quality fringe settlements should return to the city when active deterioration of their rural subdivision settlements sets in. The effect of neighborhood redevelopments in the city on growth in particular suburban areas will depend on the full competitive picture.

¹Zoning Ordinance of Cook County, Illinois.

²An important study of possible urban redevelopment has been made by the Chicago Plan Commission, Rebuilding Old Chicago, City Planning Aspects of the Neighborhood Redevelopment Corporation Law (Chicago: Chicago Plan Commission, 1941).

City Government and Taxation

Reputed corruptness and inefficiency of government in the City of Chicago have had an undoubted influence in promoting the growth of the metropolitan suburban extensions. Three advantages of living under suburban governments often mentioned in comparison with living under Chicago government are: (1) better school instruction, (2) lower taxes, and (3) possession of local governmental control.

Better school instruction needs some qualification. The quality of instruction throughout Chicago is not uniform, and many of the Chicago schools no doubt are better than many of the suburban schools. Nevertheless, it is common belief that certain of the suburban school systems give better instruction, and--whether true or false--this fact has increased suburban growth. The good schools of the Park Ridge - Barrington suburbs have had some stimulating effect on population growth.

In the case of the other two factors, lower taxes and possession of local governmental control, the suburbs have the advantage over the city in every case. City taxes are higher largely because of more government, which the suburbs due to their smaller size are able to forego. Lack of local governmental control in Chicago derives partly from the form of municipal government in effect and partly from the indifference of many of the citizens.

Outlying Shopping Centers

During the last fifteen years two large suburban shopping centers which are accessible to the northwest suburbs have developed, one in Oak Park and the other in Evanston (see Fig. 1 for location of these suburbs). These represent a new phenomenon, different from the ordinary suburban or neighborhood shopping center. Shopping facilities in many ways comparable to those of the Loop district of Chicago are offered, with many of the downtown stores having branches in one or both of the centers. While the trade areas of the two centers may reach a mile or so into the City of Chicago, they reach for many miles out into the suburban communities.¹ In addition to their shopping qualities, they offer

¹Map of Trade Area of Oak Park (Oak Park: Chamber of Commerce, 1940).

to suburban residents the advantages of relative nearness, convenient accessibility by highway, and good parking facilities. As they do not offer as complete a selection of goods as found in the Loop, the more sophisticated suburban shoppers continue to prefer the latter.

The Park Ridge -Barrington suburbs are about equi-distant from both Oak Park and Evanston, with both centers apparently sharing in the northwest trade about equally. This equality of distance gives the people of these suburbs an advantage in being able to select from a larger group of stores and goods. They are at a disadvantage in being farther from these shopping centers than the suburbs of the north and west extensions. Park Ridge is at least ten miles from both centers, and Des Plaines and the other northwest suburbs are progressively farther. This greater distance has made the Loop relatively more important as a shopping center for the residents of the northwest suburbs.

The future growth or decline of these outlying shopping centers will have its effect on and be affected by the suburban extensions. At present they are growing along with the extensions. The establishment of a new outlying shopping center, in Park Ridge for example, would stimulate the growth of the Park Ridge -Barrington Area. The probability of such a development seems remote at the present time, but large population gains in the northwest vicinity soon could make it an actuality.

Industrial Movements

Decentralization of light industry in the Chicago area has been a trend in recent decades with the motive behind this movement being the search for cheaper land, lower taxes, better labor conditions, and less municipal restrictions of all kinds. The Park Ridge -Barrington Area along with other suburban areas has received additional industries, and these have assisted its growth. In the four year period from 1936 through 1939, 9 industries located in the area, of which 7 industries with employment of about 250 persons remain at present.¹ Five are located in Des Plaines, and 2 in Barrington. Of the total 3 were new industries,

¹From the records of the Industrial Development Department, Public Service Company of Northern Illinois, through the courtesy of Mr. George Mitten.

3 transferred from Chicago, and 1 from outside the Chicago area. The Jewel Tea Company, which is one of the largest of the industries in these suburbs, was established at Barrington only in 1929 and is expanding its facilities at the present time.

Another factor which may influence industrial expansion in these suburbs as well as in others is the placing of large orders with present or to-be-constructed plants by the federal government in connection with the war program. The Benjamin Electric Company at Des Plaines early received a defense order from the government.

Metropolitan Agriculture

At least three agricultural trends in metropolitan Chicago are having their effects on residential development in the Park Ridge - Barrington Area. These are: (1) the decline of truck farming, (2) the increasing development of special agricultural types, and (3) the transformation of dairy farms into "gentlemen farms."

The decline of truck farming is affecting the suburban area in several ways. The deterioration of farm buildings and dwellings is detracting from the pleasant qualities of the landscape. Declining agricultural income is hurting local commercial centers, particularly in Des Plaines where the truck farming trade has been of considerable importance. Furthermore, by reason of higher taxes and lower income the farmers are forced to sell their land for subdivision earlier than the demand normally would warrant, and premature subdividing is encouraged.¹

The increasing development of special agricultural types is counteracting to a certain extent the depressing effects of the decline of truck farming. These special types include floral greenhouses, mushroom growing, poultry raising, and the breeding of dogs and fur-bearing animals. On the whole they are less attractive than the truck farms they have replaced although presumably more remunerative for the land area occupied.

The transformation of dairy farms into gentlemen farms has helped to encourage the development of high quality rural

¹The effect of high suburban land values on truck farming is considered by Herbert D. Simpson and John E. Burton. The Valuation of Vacant Land in Suburban Areas, Studies in Public Finance, Research Monograph No. 2 (Chicago: The Institute of Economic Research, Northwestern University, 1931).

subdivisions around Barrington and Palatine but has had little effect on the residential quality of the suburbs of Barrington and Palatine. Many farms are being used now as year-around residences by business executives and professional men who commute daily to the Loop. A new social life has been introduced into this district, and a strong community spirit, interested in maintaining the attractive qualities of the landscape and keeping out the undesirable ones, is developing.¹ The continuance of the trend toward gentlemen farming seems assured for at least the immediate future, and the Barrington district no doubt will continue to hold its competitive position with other rural districts offering similar inducements for such development.

Competing Extensions

The Park Ridge - Barrington Area is competing for new residents with the City of Chicago and with the entire suburban fringe. The growth or decline of the Park Ridge - Barrington Area depends not necessarily on what it has to offer residents, but on how its offering compares with what the rest of the Chicago area has to offer. With some sections it is competing more than with others, its more active competitors being the western suburban extensions, the northern suburban extension, and the northwest sector of the City of Chicago. Any change in the amount, quality, or cost of residences in these sections affects residential development in the Park Ridge - Barrington Area. Only a complete analysis and comparison of residential land use and the other patterns of land use and services for all competing sections would offer an accurate picture of the competitive position of the area, and such a picture would be accurate only for the moment, since competition is a dynamic phenomenon. The competitive factor is too elusive for evaluation. Attention is drawn to it simply to emphasize the basic complexity of the problem of forecasting suburban development.

¹Evidence of civic interest is provided by the carefully written and attractive publication Know Your Township and Village, A Handbook of Local Government for Citizens Living In and Around Barrington, Illinois (Barrington: Barrington Countryside Association, 1941).

CHAPTER III

PREMATURE SUBDIVIDING

Section 1. Subdivision Cycles and Patterns

The chronology of subdividing in the Park Ridge - Barrington Area emphasizes that prematurely subdivided land existed almost from the beginning of urban settlement but that its climaxial development occurred during the decade of the nineteen-twenties.¹

Early Occupancy and Original Subdivision Plats

Only a little over one hundred years ago the present Park Ridge - Barrington Area was an uninhabited wilderness traversed only by the occasional Indian or white trader. With the successful conclusion of the Blackhawk War in 1832 this area with the rest of northern Illinois became available for safe and permanent settlement. The first settlers were Yankees and arrived in 1832 and 1833.² During the following several years other Yankee pio-

¹Notable studies of premature subdividing in the Chicago region and in other metropolitan areas in the United States reach a similar conclusion. Among these are:

Helen C. Monchow, Seventy Years of Real Estate Subdividing in the Region of Chicago, Northwestern University Studies in the Social Sciences No. 3 (Chicago: Northwestern University, 1939).

Philip H. Cornick, On the Problems Created by the Premature Subdivision of Urban Lands in Selected Metropolitan Districts in the State of New York, A Report to the State Planning Council of New York (Albany: Division of State Planning, 1938).

Michigan Planning Commission, A Study of Subdivision Development in the Detroit Metropolitan Area (Lansing: Michigan Planning Commission, 1939).

New Jersey State Planning Board, Land Subdivision in New Jersey (Trenton: New Jersey State Planning Board, 1938).

²The more comprehensive and authoritative sources on the early history of townships and suburbs in the Park Ridge - Barrington Area are:

A. T. Andreas, History of Cook County, Illinois, From the Earliest Period to the Present Time (Chicago: A. T. Andreas, 1884), pp. 490-511, 829-46.

Everett Chamberlin, Chicago and Its Suburbs. (Chicago: T. A. Hungerford & Company, 1874), pp. 451-58.

neers--attracted by the qualities of good drainage, fertile soil, and the existence of woodland and prairie side by side--took land either on or near the sites of all the present suburbs. While Maine township was surveyed by the federal government as early as 1821 and Palatine township in 1828, the surveys of the other Cook County townships within the present Park Ridge - Barrington Area were not made until the years of 1838, 1839, and 1840.¹ Thus, many of the early settlers held squatter rights to their land, but following the completion of the survey most of them purchased the land from the government at the regular price of \$1.25 per acre. In the decade of the 1840's settlement increased slowly; the economy was primitive and self-sufficient; and a real need for nucleated village settlements did not arise.

Great changes were underway in 1851 with the beginning of construction of the Illinois and Wisconsin Railroad, a progenitor of the Chicago and North Western Railway.² Between 1852 and 1854 the first non-farm residences and stores were erected in all of the present suburbs except Mount Prospect, and on October 1, 1854 regular rail service to Chicago for the communities as far out as Deer Grove (northwest of Palatine) was inaugurated.³ By January 1, 1855, trains were operating to Barrington, and on July 11, 1855, the line was opened to Woodstock.⁴

All the original land subdivision plats for the new villages were surveyed and recorded during the period from 1854 to 1857 (Fig. 9 and Table 18). A small addition, the first subdividing expansion, was made in Palatine in 1856, and two additions in Arlington Heights, or Dunton as it was then called, in 1859. These additions adjoin the original subdivisions. The subdividing probably represented an actual need for more lots, because growth was greater in these two villages than in the other villages during the early decades (Table 17).

¹Andreas, op. cit., p. 340.

²A. T. Andreas, History of Chicago, From the Earliest Period to the Present Time (Chicago: The A. T. Andreas Company, 1886), I, 257. For subsequent history of the railway see Vol. II, pp. 133-35.

³Chicago and North Western Railway Company, Yesterday and Today: A History of the Chicago and North Western Railway System (3d ed. rev.; Chicago: Winship Company, 1910), p. 53.

⁴Andreas, History of Chicago, I, 257.

The penetration of a railroad into this farming area quickened the pace of agricultural expansion and inevitably meant the beginning of urban nuclei along the line to secure the advantages which rail service offered. Primarily, the early villages arose to serve agricultural interests, but other reasons for their origin also played important parts. Park Ridge owed its original settlement to George Penny who established there in 1854 a brickyard which made use of a local red clay deposit.¹ The bricks were marketed in Chicago by taking advantage of the new rail transportation. Park Ridge early was called Pennyville, then Brickton, but in 1873 the present name was adopted.²

While the location of Des Plaines was predetermined by the strong agricultural settlement in the vicinity, the original impetus to urban growth came largely through the speculative efforts of the Illinois and Wisconsin Land Company, which in 1853 bought farm land west of the Des Plaines River at the point of railroad crossing and there laid out a village.³ Another factor contributing to early urban growth at Des Plaines was the location here in 1860 of the Chicago Methodist campgrounds.⁴ On the 33 acre wooded tract east of the Des Plaines River it is claimed that there were some 30,000 people present at the National Camp Meeting held in 1870. For Palatine it has been said that the building of the Illinois and Wisconsin Railroad "was the cause of the origin and location of the village at this place."⁵ Barrington began to grow when the railway station was moved there from Deer Grove in the fall of 1853.⁶ Arlington Heights appears to have received little growth stimulus from non-agricultural developments. Its greater early population growth is evidence of the well-drained, predominantly level, and fertile farmland in its vicinity.

The development of Arlington Heights as a rural service center was typical of the villages in the area, and the character

¹Andreas, History of Cook County, Illinois, p. 497.

²Ibid., pp. 498-99.

³Ibid., p. 494.

⁴Chamberlin, op. cit., p. 453.

⁵Andreas, History of Cook County, Illinois, p. 830.

⁶Ibid., p. 839.

and progress of the early growth is illustrated by the following list of buildings erected in the original settlement with the dates of their construction:¹

- 1854 Dunton farm house
Miner general store
Railroad depot
- 1855 Wing general store
2d house (McGrath) with other houses following
Page blacksmith shop
Flemming blacksmith shop
First Presbyterian Church
- 1856 Gale hardware store
J. V. Downs & Co. Hotel
- 1860 Methodist Church
St. Peter's Evangelical Lutheran Church
De Long tinshop
- 1861 Williams cheese factory
- 1863 Johnson and Peter hardware store
- 1865 Shirra grist mill

From Civil War Through World War I

Excessive or premature subdividing of land in the Park Ridge - Barrington Area occurred during the first cycle of subdividing activity following the period of initial platting. While some land was subdivided in both Palatine and Park Ridge at the close of the Civil War, the boom period of land speculation did not get fully underway until after the Chicago Fire of 1871.² (See Table 18 for number of subdivisions recorded by years in the various suburbs and rural districts of the Park Ridge - Barrington Area.) During the four years from 1873 through 1876 the subdivided area of Park Ridge was more than tripled with an addition of about 350 acres of block and lot subdivisions (Fig. 9), yet population which in 1873 was 405 had grown in 1880 to only 457, or an increase of 52 persons. The amount of premature subdividing in Des Plaines and Arlington Heights during the same period was

¹Ibid., p. 503.

²The authoritative work on subdividing in the Chicago suburban area is by Helen C. Monchow, *op. cit.* Also extremely valuable is a comprehensive analysis of the Chicago real estate cycle, including subdividing activity, made by Homer Hoyt, One Hundred Years of Land Values in Chicago, The Relationship of the Growth of Chicago to the Rise in Its Land Values, 1830-1933 (Chicago: University of Chicago Press, 1933), chap. vii. See especially Fig. 94.

also considerable. Some of this land remains to the present time sparsely settled or vacant (compare Figs. 9 and 2), and the major portions were not occupied until many years after original subdivision. The initial plat of Mount Prospect was recorded in 1873, but evidence of any early growth other than a railroad station is lacking. In the other communities evidence of their attainment of some degree of occupancy maturity is provided by their incorporation as villages during the years from 1865 to 1874.¹

Another cycle of subdividing activity had boom years from 1890 through 1895 (Table 18 and Fig. 9). Park Ridge, despite its possession of much previously subdivided land which was unoccupied, again experienced the greatest amount of subdividing. Approximately 225 acres were subdivided, and most of this land patently represented premature subdividing, since population increased only from 987 in 1890 to 1,340 in 1900. (See Table 17 for population by decades.) Some portions of this land are in large measure vacant even today; other portions are receiving new growth; and the remainder was built on chiefly during the early 1900's. The additions to Des Plaines proper and Arlington Heights were each about 50 acres. The increased land for new building appears to have had some justification in Des Plaines where population increased by 680 persons during the decade, attaining 1,666 in 1900 and making Des Plaines the largest municipality in the Park Ridge - Barrington Area. On the other hand Arlington Heights experienced an actual decline in population during the same period, and very few of its newly subdivided parcels were occupied for many years. Riverview, now a part of Des Plaines, was another community in which excessive subdividing was rife during the early 1890's (Fig. 9). Great hopes were held for this town with the actual building and putting into operation of at least five factories manufacturing pianos, paper, steel coaches, and electric equipment, but the hopes were short-lived, and the bottom dropped out of the boom when fire swept the town a few years later.² Riverview had no distinctive advantages for manufacturing development, was solely a speculative ven-

¹Andreas, History of Cook County, Illinois, pp. 493, 499, 503, 831, 839.

²Information on Riverview history from Mr. Victor W. Richter, officer in the local Des Plaines Historical Society, personal interview.

ture, and never has flourished since that early time--its subdivisions today being characterized by sparse and low quality occupancy (Figs. 2, 4, and 5).

Subdividing over the latter part of the period from 1860 to 1918 was distributed over longer intervals of time, and the peak years of activity were different for most of the towns (Table 18). It was during the years from 1901 through 1914 that the first recorded subdivision additions of considerable size were made to the initial plat of Barrington, the village which is farthest from Chicago. Prior to this period Barrington had experienced some expansion through metes and bounds subdividing, which was recognized in 1898 by the so-called County Clerk's Subdivisions which gave lot numbers to existing parcels. (Note the three areas in Barrington designated as CC in Fig. 9). The metes and bounds subdividing does not appear to have been speculative but rather to have been carried forward in a conservative manner as the need for residential sites arose. This portion of Barrington, together with the initial subdivision, is occupied today by the older homes (Fig. 3). In contrast, the recorded subdivision additions which were made before the war represented the beginning in Barrington of land speculation such as had been felt in the inner suburbs several decades earlier. All stages of residential use density from complete vacancy to almost complete use now may be found in the tracts subdivided during the pre-war years.

In Arlington Heights not a little subdividing occurred in the first two decades of the century. Numerous small subdivisions in the central part of the village experienced very rapid and complete residential growth. Other less numerous but much larger subdivisions on the fringe were divided into large lots or parcels which were devoted to a different type of residential occupancy, which has been called the garden farm type. Settlement in the outer subdivisions was less successful, and some parts remain unused to the present.

It was during the first two decades that Mount Prospect began to show some life. In 1906, portions of the original plat were resubdivided; and in 1912 the first addition, a small subdivision on the south side of the tracks, was made. The first large scale addition was subdivided in 1918 on land directly east of the original plat. Most of this subdivision was resubdivided in the 1920's and only currently is being improved, which is evi-

dence of the prematurity of its original subdividing in 1918.

The largest single year of subdividing expansion in Des Plaines was 1911, when three large additions west of the center of town were made. The addition nearest to the center was soon well occupied; the adjoining subdivision built up slowly, not receiving its full growth until the early 1920's; while the third and outer addition still remains sparsely occupied despite resubdividing and renewed promotion in the late 1920's. A fourth large subdivision of this cycle, made in 1915, is partially settled and experiencing a new promotion campaign at present.¹

Park Ridge and Palatine, alone of the suburbs, had little subdividing activity during the first two decades of the century. While population in Park Ridge more than doubled during the period, over-expansion of subdivided land in previous periods proved more than adequate for all needs. Palatine was still unaffected by suburban expansion speculation, and population increased only slightly.

Of the land outside the incorporated municipalities, few subdivisions which remain unincorporated today were made before 1920. The earliest subdivision adjoins Des Plaines on the north and was made in 1872 by Socrates Rand, a prominent early settler, from a portion of his original homestead (Fig. 9). This subdivision is fairly well occupied at present, partly as the result of commercial development near the intersection of Rand and River roads. During the subdividing boom of the 1890's land was platted south of Des Plaines at Orchard Place, which remains to the present as a sparsely settled, small, rural crossroads. Northwest of Barrington another rural subdivision, which was called by the ambitious title, Chicago Highlands, was made in 1902. A few years ago a large portion of this subdivision was officially vacated, and the remainder stands with sparse and generally very low quality settlement.

The Nineteen-Twenties

All the excessive and speculative land activity in the suburbs of the Park Ridge - Barrington Area prior to World War I appears insignificant in comparison with the activity of this sort

¹Des Plaines Gardens (Fig. 9).

which flourished in the following decade of the 1920's. During these years the subdivided area of every suburb more than doubled, indeed tripled in all of the towns except Des Plaines and Barrington.

In Park Ridge and Arlington Heights the total amounts of subdividing were greater. One hundred twenty-four separate subdivisions were laid out in the two suburbs, and not a few of them experienced active building. Park Ridge, in particular, was ripe for a speculative real estate boom for several reasons, among which were: (1) an actual need for additional lots because population had increased greatly during the previous two decades, and yet almost no subdividing had occurred since the boom of the early 1890's; (2) the most favorable location with reference to Chicago; and (3) a somewhat more attractive and higher quality existing residential use than in the other towns. The need for additional lots in Arlington Heights was less pressing, but attractive sites near the railway station were available.

Extravagant hopes for phenomenal growth were held for all of the suburbs. Mount Prospect offered nearness to Chicago, much land closeby the station, and the opportunity of building and living in almost a new community. Palatine, growing steadily though slowly as a farm center, never before had had a major land boom, but the fever for subdividing caught on here with unabated strength. At Barrington and Des Plaines the activity was only less intense. Probably the greater distance and the cost of commuting acted as a curb in Barrington, while at Des Plaines many unused lots remained from expansion made in the previous decade.

The peak years of subdividing activity in the different suburbs varied (Table 18). In Park Ridge 1924 was the greatest year with 1925 and 1926 also very important. At Arlington Heights 1924, 1925, 1926, 1927, and 1929 were all important years. Palatine and Barrington crowded most of their subdividing into 1925, 1926, and 1927. The great year in Mount Prospect was 1926. Des Plaines, as in many other respects, was different. Its major subdivisions of this cycle were made early in 1919 and 1920 and late in 1927 and 1928 with an intermediate lull in activity.

Rural land subdividing into blocks and lots in the Park Ridge - Barrington Area, which was almost unknown before the decade of the 1920's, had an extensive development in Palatine township. The choice of this outer location does not appear strange,

when the character of these rural subdivisions is understood. They were intended largely for part-time chicken or garden farming with individual sites of one to two acres in size. Reasonably inexpensive land was required and provided near Palatine, and many good-sized subdivisions were made. Very few of the "garden" or "farm" subdivisions¹ were laid out in the inner portion of the area near Des Plaines or Park Ridge, largely because of higher land costs. Land values were higher partly because of speculation on possible suburban expansion and partly because of more intensive agricultural use through truck farming. In the country north of Barrington another type of rural subdividing had its beginning. Several small-lot subdivisions here were laid out around the lakes and sold for summer home sites.

While much of the land subdivided during the 1920's was premature and even today remains unoccupied, a great deal of the newly subdivided land was built upon. The great population increases of the suburbs, which have been noted in an earlier connection, in themselves are evidence of the additional land put into residential use.

The Depression and Recent Years

Subdividing in the Park Ridge - Barrington suburbs largely has ceased since 1930. Only six subdivisions have been recorded, and four of these are in Des Plaines. Of the other two, one of about a half block in size lies in Park Ridge,² and the other, considerably larger in size but still completely vacant, is in Mount Prospect. Of the four subdivisions in Des Plaines, one was recorded in 1932, two in 1938, and one in 1939. All of these new subdivisions lie in the northwest portion of the city known as Cumberland (Fig. 9), which was not annexed until 1927.³ Two of the subdivisions are being built up fairly closely (Cumberland Terrace and Cumberland East in Fig. 9), while the other two have

¹The terms "garden" or "farm" subdivisions were given by the real estate developers. Illustrations are Home Garden Acres, Palatine Farms, and Roberts' Farms.

²Three very small additional subdivisions (Talcott Road Subdivisions) have been laid out in south Park Ridge within the last year (Fig. 9).

³Municipal Code of the City of Des Plaines of 1928 (Des Plaines: City Council of the City of Des Plaines, 1928), p. 7.

received no improvements whatsoever.

By far the greater part of the recent subdividing has occurred in the unincorporated or rural area surrounding Park Ridge and Des Plaines, or, as previously called, the Maine district. This subdividing began in 1934, but the important years were from 1937 through 1940. Outside of the numerous though scattered subdivisions made in the Maine district two new subdivided communities of significance made their appearance. These are Prospect Heights in Wheeling township and Inverness Countryside in Palatine township (Fig. 9). Almost all of the new subdivisions have received some building, and not a few already are occupied fairly closely. The speculative element in subdividing has been lacking during this period, and almost all lots have been sold to persons who intend to build homes immediately or very soon. Most of the new rural subdivisions have prospered, because they offered large lots at relatively low prices and within the portion of the area nearer to Chicago.

Section 2. A Measure of Premature Subdividing

As the result of many decades of excessive and premature subdividing there exists in the Park Ridge - Barrington Area a very large and important amount of vacant and sparsely settled subdivided land. Evidence of the size of this land has been presented in Chapter II in connection with Figure 2, Pattern of Residential Use Density, and Table 5, accompanying. This evidence requires further interpretation. A single measure describing the seriousness of the problem of prematurely subdivided land is needed for use in comparing communities. Such a measure has been devised and is presented for each of the suburbs and rural districts in Table 12.

The measure represents roughly the additional percentage of population which might be accommodated in the present subdivided area. This measure was obtained for each community by dividing the number of vacant homesites by the number of occupied homesites.¹ It is assumed that the vacant homesites could take care of the

¹Another type of premature subdividing measure is given for selected Chicago suburban communities by Helen C. Monchow, op. cit., pp. 32-54. This measure is the ratio of the surplus lots to lots needed. Also cf. New Jersey State Planning Board, op. cit., pp. 19 and 32-37.

same population per unit as those now occupied. The fact is recognized that some homesites in almost every subdivided place never are used, but this hardly can be attributed to premature subdividing. Therefore, vacant homesites in the more densely settled blocks were not counted, and a density of use no greater than that now found in these blocks was set as the future maximum for all less densely settled blocks. As a result of this decision the individual measures of premature subdividing are conservative estimates.

In the Park Ridge - Barrington Area more than double the population of each suburb and each rural district could be accommodated in single-family homes if the vacant homesites were occupied (Table 12). For certain of the communities in the area populations of three or four or even five and six times the present populations could be accommodated. Patently the entire area is grossly oversubdivided for present needs.

The variations in the intensity of the problem of prematurely subdivided land among the communities are the result of variations in the amount of subdividing and variations in occupancy or population growth. During the great subdividing cycle of the nineteen-twenties Park Ridge and Des Plaines both experienced a full share of the subdividing in the area, but their rate of growth also was high. In Mount Prospect subdividers were induced by the local qualities of nearness to city, original small size, and general attractiveness to carry through an excessive oversubdivision which even the continued high rate of population growth since the collapse of the boom in the late twenties has not absorbed very much. As a result Mount Prospect stands as the prime illustration of premature subdividing in the entire Park Ridge - Barrington Area. Both Palatine and Arlington Heights also have high measures of premature subdividing. At the other end of the chain, Barrington, with less subdividing and a moderate rate of growth, has the lowest measure of premature subdividing. Its contrast with Palatine, which had much more subdividing activity than Barrington but the lowest rate of growth of all suburbs for both of the recent decades, is marked.

A trend for the measure of premature subdividing to increase outward from Chicago is noted in the Park Ridge - Barrington Area (Table 12). Apparently the amount of subdividing in the outer suburbs and rural districts has been less justified by the

TABLE 12

A MEASURE OF PREMATURE SUBDIVIDING: THE RATIO
OF VACANT HOMESITES TO OCCUPIED HOMESITES,
BY SUBURBS AND RURAL DISTRICTS^a

Suburb	Percentage
Park Ridge.	140
Des Plaines	130
Mount Prospect.	580
Arlington Heights	270
Palatine.	290
Barrington.	120
Rural District	
Maine	150
Prospect Heights.	270
Palatine.	350
Barrington.	500

^aThe numbers of vacant and occupied homesites were calculated from the map of residential use density, Fig. 2. For each density class in each suburb or rural district the average number of occupied homesites per block were discovered by sampling. This was done with the aid of aerial photographs and by field work. It was found in Park Ridge that the number of occupied homesites averaged 17 in Class 1 blocks, 7 in Class 2 blocks, and, by definition, 1 in Class 3 blocks, and 0 in Class 4 blocks. In Des Plaines the first two classes averaged 16 and 6; in Mount Prospect, 14 and 4; in Arlington Heights, 14 and 4; in Palatine, 15 and 5; and in Barrington, 14 and 4. All small blocks were counted as half-blocks. The number of vacant homesites in each of the block density classes were secured simply by subtracting the occupied homesites from the total homesites. The total homesites in each block were determined arbitrarily to be no larger than the total of occupied homesites in Class 1 blocks. The percentage figures are rounded off to the nearest 10 per cent.

accompanying rate of growth than that in the inner portion of the area. The reversal of the suburban trend at Barrington suggests a recognition by the subdividers that population growth would not justify as much land subdivision. For the rural districts the trend shows a large and progressive increase outward. In the outer districts the excessive subdividing of lower priced farm land has not been justified by the population growth. Premature subdividing in the Maine and Prospect Heights districts is over-emphasized because of the recency of much of the subdividing and its present high rate of development.

Section 3. Vacant Subdivided Land With Local Improvements

Pattern of Wasted Local Improvements

In everyone of the six Park Ridge - Barrington suburbs one or more of the common local improvement systems may be found serving most of the vacant and sparsely settled subdivided land. Among the improvements the more widespread are water, sewerage, and street paving, and these are dealt with here in detail; but street lighting and sidewalks and privately owned improvements, including gas, telephone, and electricity, are present also in many of the vacant areas. By far the greater part of all these improvements were made during the real estate boom of the nineteen-twenties and particularly during the latter portion of that decade.

The extent to which the various public improvements now are wasted in each of the six suburbs is illustrated by Table 13. Mount Prospect has the poorest standing with more than a half of its local improvements remaining unused. For Park Ridge, Arlington Heights, and Palatine roughly a third of the local improvements are unused. Des Plaines shows up somewhat better with a ratio of approximately a fifth, while Barrington by comparison with the others makes very good use of its improvements with only a tenth unused. It is obvious that the wasteful extension of local improvements is related closely to premature subdividing. Barrington, farthest suburb from Chicago, escaped the more excessive subdividing activity and the accompanying extension of improvements during the twenties. In Des Plaines much of the subdividing occurred during or shortly after World War I with the result that many of the blocks were occupied partially by the beginning of the de-

pression. However, the very high percentage of Class 2 blocks of residential use density in Des Plaines (see Table 5) would support the argument that the relative waste of local improvements in this suburb is not very much less than in Park Ridge, Arlington Heights, and Palatine.

From the standpoint of absolute areal waste of local improvements, Park Ridge with its much greater size stands out conspicuously (Table 14, Column 6). Mount Prospect and Arlington Heights are about even in total vacant land served by local improvements with Des Plaines and Palatine somewhat lower in this respect. Barrington is very much lower.

Unused paving improvements constitute a waste very much greater than water or sewerage improvements. Comparison of assessments for paving, including sidewalks and curbs, with water and sewerage assessments in the Park Ridge - Barrington suburbs reveals that the former exceeds a combination of the latter on the average about two times.¹ This fact leads to the conclusion that Park Ridge, with 127 vacant or sparsely settled blocks served with street paving, has far and away the greatest waste of local improvements among the six suburbs. Arlington Heights, Mount Prospect, and Des Plaines represent much smaller wastes, and the wastes in Palatine and in Barrington appear insignificant in comparison (Table 14).

The distribution pattern of vacant and sparsely settled blocks served with local improvements in the Park Ridge - Barrington Area is presented in Figure 8. It shows irregularly-shaped block groups scattered in a more or less disorderly fashion about the different suburban cores. The irregularities of the pattern derive from the irregular subdivision pattern and the irregular local improvement extension pattern and is accentuated further by the interruptions provided by nuclei of settled blocks. The vacant land delineated by the map breaks down into four different classifications determined by the type of local improvement or combination of types with which it is served. The four classes are: (1) vacant land with paved streets, water and sewerage systems; (2) vacant land with water and sewerage systems; (3) vacant

¹Based on data secured from the land lot ledger cards on properties with delinquent special assessments in these suburbs. These records have been prepared by the Office of the Cook County Clerk with assistance from the Works Progress Administration.

TABLE 13

RELATION OF VACANT RESIDENTIAL BLOCKS WITH LOCAL
IMPROVEMENTS TO TOTAL RESIDENTIAL BLOCKS
WITH LOCAL IMPROVEMENTS, BY SUBURBS^a

Suburb	Percentage			
	With Water	With Sewerage	With Paving	Average
Park Ridge.....	40	40	33	38
Des Plaines.....	18	21	16	18
Mt. Prospect.....	60	58	44	54
Arlington Heights	36	30	23	30
Palatine.....	49	42	20	37
Barrington.....	20	7	4	10

^aCalculated from Fig. 8 and manuscript maps, showing area served with local improvements, prepared by the author. Vacant blocks include Class 3 and Class 4 blocks of residential use density (Fig. 2).

TABLE 14

NUMBER OF VACANT RESIDENTIAL BLOCKS WITH
LOCAL IMPROVEMENTS, BY SUBURBS^a

Suburb (1)	With Water, Sewerage, and Paving (2)	With Water and Sewerage (3)	With Water (4)	With Sewerage (5)	Total (6)
Park Ridge.....	127	44	3	2	176
Des Plaines.....	40	18	4	..	62
Mt. Prospect.....	51	31	16	11	109
Arlington Heights	58	30	17	2	107
Palatine.....	12	30	21	..	63
Barrington.....	4	3	20	..	27
Total.....	292	156	81	15	544

^aCalculated from Fig. 8. Vacant blocks include Class 3 and Class 4 blocks of residential use density (Fig. 2).

land with water system; and (4) vacant land with sewerage system. The importance of the classes in terms of area is in the same order (see both Fig. 8 and Table 14). The pattern in Park Ridge stands out both for its great extent and its high proportion of blocks served with all three improvements.

Significance of Wasted Local Improvements

The construction of local improvements long before they are needed or which never will be used represents economic loss and a waste of natural resources, labor, and management. In addition to this basic loss to society, losses result to interested individuals, to municipal governments, and to the entire community in which the wasted local improvements are located.¹

The choice of methods by which local improvements are financed determines how the losses may be borne. In some cases all or part of the improvements were paid for by the subdivider and added to the cost of the lots. When the real estate boom collapsed, the subdivider found that his unsold lots were frozen assets and that so were many of the lots previously sold which reverted to him in title because of the failure of the purchasers to maintain their installment contracts. The losses under this system of private financing of local improvements were individual and did not affect the possibility of disposing of the land in the future when the demand should arise. Unfortunately, very few improvements in the Park Ridge - Barrington suburbs were made under this arrangement.

The other method of financing local improvements is by special assessments provided by ordinance of the city council or village board at the recommendation of its board of local improvements.² Under this method the parcels of property benefited are

¹For discussions bearing on the wastes involved in the over-extension of local public improvements see:

Cornick, op. cit., pp. 120-95.

Hoyt, One Hundred Years of Land Values in Chicago, pp. 392-93.

Edmund N. Bacon, "A Diagnosis and Suggested Treatment of an Urban Community's Land Problems," The Jour. of Land & Pub. Util. Econ., XVI (February, 1940), 80-83.

²The procedure of financing local improvements in Illinois by special assessments is presented by the Illinois State Tax Commission, op. cit., pp. 29-35. This volume contains a com-

assessed a special tax, generally over a period of ten years, to pay proportionate shares of the cost. Most improvements were financed thus in the Park Ridge - Barrington suburbs. With the advance of the depression early in the last decade the majority of property holders with special assessments against their parcels were forced to default. In many cases where the lots were sold on time, payments to the subdivider also could not be maintained, and he regained full title. The subdivider did not make many tax payments, either on unsold lots or reclaimed lots, partly because he lacked the financial means and partly because he could not foretell when, if ever, he would be able to dispose of the properties at a price which would compensate him for the investment in taxes. As a result the parcels continued delinquent and accumulated penalties and interest. The addition of penalties and interest to the assessments, which were abnormally high because of the high prices of improvements during the boom period, has made the redemption of delinquent properties in the majority of cases economically unfeasible under present market conditions. General taxes on most properties also became delinquent making the problem even more difficult. In not a few cases the owner has abandoned the property and can be located, if at all, only with extreme difficulty by a prospective purchaser. In this fashion subdivided land which was overimproved at high prices has become tax delinquent and is prevented from further development.

A heavy financial burden is borne by the special assessment bond holders who must rely entirely on special assessment collections, because there is no provision in Illinois statutes for municipal guarantee of special assessment obligations.¹ Another loser in the special assessment situation is the land owner who makes all his tax payments but fails to build on his land and enjoy the use of the installed utilities and is unable to realize from future sale an amount to compensate for his investment in the improvements. The local municipalities which are required to maintain water, sewerage, and paving systems in the vacant and

prehensive review of the use and the problems of special assessment finance in Illinois, as well as statistical data for all counties except Cook.

¹Ibid., p. 86. Doubt still remains as to municipal liability to bondholders. See pp. 59-60.

sparsely settled areas receive less income from the properties served than is required for maintenance purposes, and taxpayers in other parts of the municipalities must make up for the loss by increased taxes. In summary, direct financial losses have been suffered by numerous interests in connection with unused local improvements: the lot purchaser who lost his equity; the lot purchaser who failed to use his property; the subdivider; the bondholder; and the municipality and the other local taxpayers.

The tax delinquency situation discourages further development in the improved subdivisions and thereby is responsible for other losses. Where homes have been built, the value of the properties is depressed by the general stagnation of the neighborhood. This leads to poorer maintenance and a general physical decline in housing quality. An exaggerated decline in both life expectancy and value of the improvements themselves is experienced because of lack of use and attention. The deterioration of sidewalks and street pavements is most noticeable.

Within the vacant and sparsely settled subdivisions which are serviced with local improvements in the Park Ridge - Barrington suburbs, the majority of all properties are in default for non-payment of special assessments levied for the improvements.¹ The number of delinquent properties and the total amount of special assessments overdue are indicated for each of the suburbs in Table 15. Park Ridge stands out with over two million dollars worth of uncollected assessments. Mount Prospect and Arlington Heights, both with delinquencies over a million and a quarter, rank second and third. Palatine and Des Plaines stand not far below a million, but Barrington is very much lower. Because a large majority of the delinquent properties are vacant, the figures on amount of delinquency constitute fairly accurate indices of the total waste in local improvements.

Section 4. The Future of Prematurely Subdivided Land

Not all premature subdividing is harmful; indeed, a cer-

¹A manuscript map was prepared by the author showing the number and location by subdivisions of all properties with delinquent special assessments in 1940. Data was obtained from the land lot ledger cards of delinquent special assessments prepared by the Office of the Cook County Clerk.

TABLE 15
DELINQUENT SPECIAL ASSESSMENTS, BY SUBURBS^a

Suburb	Delinquent Parcels	Years Included	Balance Delinquent
Park Ridge.....	5,930	1928-38	\$2,038,202
Des Plaines.....	3,378	1928-38	898,306
Mt. Prospect.....	2,883	1928-37	1,396,938
Arlington Heights.....	4,642	1928-36	1,263,197
Palatine.....	1,832	1928-37	928,579
Barrington (only Cook Co.)..	538	1928-37	151,852

^aFrom records in land lot ledger of delinquent special assessments prepared by the Office of Cook County Clerk with the assistance of the Works Progress Administration, 1940.

tain amount of premature subdividing creates a necessary and stimulating condition in all communities which have not reached the stage of maturity. It only becomes a harmful practice when it is carried to excess--that is to say, when the parcels provided by subdividing activity exceed by a considerable number those parcels which will be used within a few years. That the amount of prematurely subdivided land in the Park Ridge - Barrington Area is excessive and constitutes a serious problem already has been established, but the real urgency of the problem is not appreciated until something is known about when the land will be occupied. For prematurely subdivided land which is to be occupied soon there is no longer any problem. For prematurely subdivided land whose settlement is subject to doubt and long delay the causes unfavorable to settlement should be understood in order that means for providing correction and an eventual solution may be discovered.

Subdivided Land Affected by Current Building Expansion

Some of the prematurely subdivided land is now in the process of being occupied. Its extent and pattern are indicated partly by those blocks built-up since 1933, which are shown in

the Pattern of Residential Age, Figure 3. Most of these blocks in each suburb are concentrated in a few of the nineteen-twenty subdivisions which were long vacant or almost unoccupied. Since the map, Figure 3, shows the median dwelling age in all blocks even though they possess only one dwelling, some caution is needed in its interpretation. Density of residential use may be ascertained from Figure 2. A significant amount of the new building in each suburb also has been scattered in blocks which were occupied partly during the twenties. In the rural districts most of the new construction has taken place in new subdivisions, which have increased rather than decreased the amount of prematurely subdivided land. This is true of most of the subdivisions in the Maine district, of Prospect Heights community in the Prospect Heights district, and of Inverness Countryside in the Palatine district. It is apparent that current building activity is helping to relieve the problem of prematurely subdivided land only in a small way. With the increasing curtailment of private construction as the result of war efforts the progress in occupying prematurely subdivided land may be stopped entirely for the duration of the war emergency.

Subdivided Land Unsited for Future Development

In all likelihood some of the prematurely subdivided land will not be occupied within the next twenty to forty years, if then. This is the probable fate of all land which has received no local public improvements and is completely unoccupied. The vacant land with no improvements may be discovered by comparing the map showing residential use density with the map of vacant land with local improvements (Figs. 2 and 8). It is significant that there is 1 complete subdivision in Park Ridge which is entirely unimproved, 3 in Des Plaines, 2 in Mount Prospect, 4 in Arlington Heights, 1 in Palatine, but none in Barrington. In addition, large and small parts of many other subdivisions in the suburbs fall into this classification. Likewise, all of the vacant subdivided blocks in the rural districts belong to this class. Should it prove desirable to promote the occupancy of any of this land, the present subdivision plats should be revised in the light of current needs and in conformance with modern principles of planning layout and restrictions.

Subdivided Land with Development in Doubt

The balance of the prematurely subdivided land in the Park Ridge - Barrington Area may be occupied fully, or may be occupied partially, or may not be occupied at all in the following decades. Its destiny will depend on three factors: the first, over which local conditions exert little influence; the second, in which local conditions play the determining rôle; and the third, which must be solved through the co-operation of local and outside interests. These factors are: (1) the metropolitan conflict of decentralization versus centralization; (2) the competitive qualities of each prematurely subdivided unit; and (3) the legal and financial difficulties facing the revival of inactive subdivisions.

Decentralization versus centralization.--Decentralization is running its course at the present time in the Chicago area, as has been proved beyond any doubt by the last population census. Most of the central portion of Chicago is losing population; its border communities and the suburbs are gaining a little; but the unincorporated areas are making great relative gains.¹ Evidence of the permanence of the decentralization trend, other than residential construction in the outlying areas, may be found in the widespread demolition of buildings in parts of the depopulated areas; in the movement of industry out of the city and, in particular, in the establishment of great new defense industries in the suburban areas; and in the continuing growth of the great outlying suburban business centers, Evanston and Oak Park.

The major effort to counteract the decentralization of Chicago is seen in the developing interest in wrecking and rebuilding the slum areas. The results thus far are largely in public housing and benefit only a minute portion of the total blighted area. A step forward to enlist the aid of private interests in slum clearance was taken in 1941 when the Illinois legislature passed the Neighborhood Redevelopment Corporation Law,² which authorizes the formation of private housing corporations under public supervision with the authority to condemn land of minority owners

¹Chicago Plan Commission, Population Facts for Planning Chicago, pp. 22-23.

²Ill. Rev. Stats. (Smith-Hurd), c. 32, §§ 550.1-550.44.

who stand in the way of slum clearing projects. When the war emergency period is over, further progress may be made in slum rebuilding. Conditions in the slum areas are becoming worse, and every year will see more buildings demolished or destroyed by fire. If large areas of the near-in slum and blighted areas were completely cleared and rebuilt with attractive housing, the decentralization trend might be reversed.

Another current effort which would have opposite effects concerns the various proposals for co-ordinated superhighway construction in the metropolitan area. These proposals appear even more likely to succeed than the slum rebuilding programs. Their primary purpose is to facilitate the movement of traffic to and from the central business district of Chicago and in particular seem to be directed toward serving the suburban areas.¹ Any improvement in suburban transportation hardly can fail to increase suburban occupancy and thereby further the trend toward metropolitan decentralization.

Competitive qualities.--Whether the prematurely subdivided land of the Park Ridge - Barrington Area will be occupied within a reasonable period also depends quite obviously on the merits of the individual subdivisions and their parcels.² The merits or demerits, as the case may be, are viewed from two aspects, those which refer to site qualities and those which refer to qualities of situation. Site qualities include: (1) the character and pattern of the land, or topography, drainage, and subsoil; (2) the character and distribution of the buildings already constructed; (3) the character and pattern of the local improvements and landscaping; (4) the public services provided for the land by governmental authorities, such as police, fire, and health; (5) the tax burden of the land; (6) the land use restrictions provided by plat and deed restrictions; and (7) the character of surrounding neighborhoods. Situational qualities, in contrast, refer to location with respect to transportation services, employment opportunities, retail stores and service establishments, schools, churches,

¹See map of proposed highway system by Cook County Highway Department, Highway Plan for Cook County, p. 21.

²A good discussion of the "extent and usability of vacant subdivided land" in Flint, Michigan is given by Edmund N. Bacon, op. cit., pp. 79-81.

parks, and other social connections. Prospective occupants in a new area examine some of these qualities before making their decision. Local interests must also examine and evaluate them. Many of the qualities can be improved. A policy of comprehensive planning in each of the suburban areas, which is directed toward enhancing the merits of the better subdivisions and eliminating the poorer subdivisions from further development, should be adopted. It is suggested that existing suburban plan commissions and zoning bodies with public support could do much to evolve such a program.

Many inactive suburban subdivisions, those without current building, are better located than many active suburban subdivisions, and all have situational advantages not possessed by the active rural subdivisions. In every one of the suburbs there are inactive subdivisions within a half-mile of the railway station, of the stores, and of the schools. Among the others there are Des Plaines Center subdivision in Des Plaines, Colonial Manor, Meier's Addition, and Hill Crest subdivisions in Mount Prospect, and Palatine Ridge subdivision in Palatine (Fig. 9). Certainly some of these subdivisions are not attractive at the present time, but competent replanning could remove many if not most of their obnoxious site qualities.

In laying plans for the redevelopment of inactive subdivisions attention must be given to market demand. Different income groups, different social groups, and others with special demands require different accommodations. Prematurely subdivided land in the Park Ridge - Barrington Area will compete with prematurely subdivided land in other suburban areas. Prematurely subdivided land also will compete with newly subdivided land. Suburban land will compete with rural land, and land in the inner suburbs and rural districts will compete with land in the outer suburbs and rural districts. Those subdivision developments which are competently planned and effectively promoted for the market demand for which they are best suited will be occupied first and most completely. The foregoing statement is admittedly a truism, but it is made to emphasize the fact that much of the responsibility for developing the prematurely subdivided land does rest in local hands.

Legal and financial difficulties.--Certain legal and financial difficulties face all who attempt to revive inactive sub-

divisions in the Park Ridge - Barrington Area as well as in other areas of premature subdividing. These difficulties are very real ones, appearing at times almost insuperable, and indeed their prominence often obscures the fact that there may be other reasons for the failure of subdivision properties. In particular subdivisions under favorable conditions some of these difficulties have been overcome and redevelopment is proceeding, but for the major part of the prematurely subdivided land other solutions must be found for these problems and probably can be worked out only through the co-operation of local and outside interests.

(1) Divided ownership.--Ownership of lots in inactive subdivisions may rest in the hands of lot purchaser, subdivider, original owner, or the creditors and heirs of these three. The original owner, in most cases a farmer, may possess all the lots in a particular subdivision if the mortgage he accepted from the subdivider was defaulted. Subdivisions in this ownership situation in most cases were not improved and have reverted to agricultural land use. These subdivisions should not be revived, but should be vacated officially on the county plat records. In most inactive subdivisions lot ownership is divided between the lot purchasers and the subdivider. In some subdivisions very few lots were sold; in others all lots were sold. The installment contract was used in the sales transaction in most cases, and title did not pass until payment of the final installment. For many of the lots sold the complete payments never were made so that title still remains with the subdivider. Such an ownership situation describes probably the majority of the lots sold in suburban subdivisions where the additional costs imposed by special assessments discouraged the purchaser from trying to hold on to his equity during the years of the depression.

With land ownership divided the problem of securing unified planning and promotion for redevelopment of inactive subdivisions is difficult. A few obstructive owners may ruin an entire redevelopment project. One solution is suggested. The recent state legislation to overcome the difficulty of securing unified ownership for the redevelopment of urban slum areas might be extended to solve the same problem for the blighted areas of the fringe, the inactive subdivisions. If the present Illinois Neighborhood Redevelopment Corporation Law with modifications were authorized to function in partially developed inactive subdivi-

sions, unified ownership and redevelopment might be achieved.

(2) Special assessment delinquency.--Inactive subdivisions within the suburban limits with few exceptions are tied up in special assessment delinquency.¹ The amounts due from many of the parcels of property are almost as high as their present market value. The story of how this delinquency developed already has been told (see Section 3). The problem of clearing up this delinquency largely depends on the possibility of reducing the charges. There are two major methods by which these charges may be reduced: one being the sale of delinquent properties by public authorities; the other, the application of assessment bonds and coupons in payment of assessments.²

The reduction of delinquency charges by sale involves two possible procedures in Illinois, the foreclosure sale or the special sale. The foreclosure sale (by which properties are sold by the city for what they will bring at auction) gives an enforceable claim to title but is an expensive procedure and has been used infrequently in the Park Ridge - Barrington Area or elsewhere.³ The special sale (by which properties are sold by the county for less than the taxes under specific statutory authority) is a relatively cheap procedure but gives an inferior claim to title. It apparently never has been used in the Park Ridge - Barrington Area.

The application of assessment bonds and coupons in payment of assessments has been employed successfully in certain of the subdivisions in the Park Ridge - Barrington suburbs. Arrangement is made by the property owner to purchase bonds at a substantial discount and then to apply them at face value against

¹Based on examination of land lot ledger cards of delinquent special assessments in these suburbs prepared by the Office of the Cook County Clerk. Also see Cook County Bureau of Delinquent Tax Collections, "A Survey of Barrington Township Concerning Real Estate and Special Assessment Delinquency," Statement released by John Toman, County Treasurer at a joint meeting of county and village officials held April 29 [1940].

²For a comprehensive discussion refer to Illinois State Tax Commission, op. cit., pp. 6-10, 56-63, 75.

³The foreclosure sale was used in 1937 to clear up long standing tax delinquency in several subdivisions in Park Ridge, among them, Shannon & Canfield's Addition (Fig. 9). Information supplied by Irving Gillick, personal interview.

assessments due on his property. This procedure is complicated by the law which provides that bonds may be applied "only to the payment of the installments to which they relate."¹ Since most installments are less than fifty dollars and no bonds have a denomination less than one hundred dollars, this method is confined to those who own several parcels of property within a single assessment district.² A major difficulty in transactions of this nature is establishing contact between lot owners and bondholders. In some cases a bond broker acts as the middleman.

Formal agreements also have been made directly between lot owners and bondholders in which a compromise of the amounts due was attained. In the case of one subdivision in Des Plaines an exchange was arranged, which provided that the subdivider owner trade his title to certain lots for a portion of the assessment bonds held by the various contractors who built the improvements. In this manner, special assessment tax delinquency was removed in this subdivision, although property ownership was divided. This case was somewhat unusual, because generally if contractors did accept bonds in payment for their work, they soon disposed of them to other parties. It is clear that this particular procedure of applying bonds on delinquent installments is facilitated where ownership of both land and assessment bonds is concentrated.

One other item complicating the use of this method needs noting. It concerns whether or not the owners of the assessment bonds are willing or able to accept a loss. Where bonds are held by banks as security for loans or in trust funds, it often is difficult, if not almost impossible, for these holders to accept a total loss on a large part of the original investment when there is still the possibility, even though remote, that the assessments may be paid in the future.

The existing means for clearing special assessment delinquency are inadequate. Better solutions appear to lie in two directions. First, by legislative enactment it should be possible to reduce the costs and the time of foreclosure proceedings on long delinquent properties and thereby encourage the transfer of these properties to a useful and tax yielding condition. A second suggestion is that a special assessment bond exchange be set

¹Ill. Rev. Stats. (Smith-Hurd), c. 24 § 795.

²Illinois State Tax Commission, op. cit., p. 9.

up under state supervision for the purpose of enabling bondholders to dispose of their bonds at a recognized market price to the delinquent property holders who in turn will apply the bonds to the delinquent assessments.

(3) General tax delinquency.--General tax delinquency is as widespread as special assessment delinquency in the Park Ridge-Barrington Area. The only method of clearing up this delinquency, other than by complete payment of taxes, interest, and penalties, is sale of the properties by public authorities. Any move that would improve foreclosure proceedings would aid in clearing general tax delinquency.

(4) Unsuitable restrictions.--A major difficulty faced by many who are attempting to redevelop subdivisions in the Park Ridge-Barrington Area is the high minimum building costs prescribed in either the recorded subdivision plats or individual deeds, or both. The original subdividers in setting such high cost standards hoped to promote high quality neighborhoods and, incidentally of course, to make more money. The minimums were set at high figures because of the general high level of construction costs during the booming twenties. With the advance of the depression almost all building stopped, as is well known. While in recent years some people again are willing to build the higher priced homes, they demand sites which are well planned and refuse to be interested in subdivisions of indifferent planning and with existing scattered growth which is already obsolescent. Many of the older subdivisions, therefore, must be redeveloped for lower income groups. Restrictions on type of structure and other building requirements in many instances also are not adapted to present conditions.

To secure a revision in the restrictions is a difficult procedure.¹ A legal method is to secure an agreement, signed by owners of two thirds of the land in the subdivision, specifying deletions and changes in the plat or deed covenants. This has been done in some subdivisions in the Park Ridge-Barrington Area, but it is unusually difficult where ownership is divided greatly. An extra-legal method is to violate the restrictions. If no action

¹A summary of the means by which deed restrictions may be released or extinguished is given by Nathan W. MacChesney, Principles of Real Estate Law (New York: Macmillan Co., 1927), p. 589.

is taken against the violators, the courts may hold that the objecting owners have lost their rights and that the violated restriction no longer can be enforced. The interpretation of whether or not the failure to object to a previous violation of building restrictions constitutes a waiver of the rights of all owners to future enforcement of the restriction appears to be based on whether or not there is evidence that the violation in question "injuriously affected the property of other home owners. . ." and resulted in "material changes in the general conditions, or surroundings, in the subdivision."¹ If ownership were unified, the difficulty would be obliterated, and it would be possible for old restrictions to be changed and new restrictions added.

(5) Financial requirements.--One of the more serious hindrances to the successful revival of inactive subdivisions is the lack of sufficient capital or credit for promotion of these properties by the subdivider owners. Today, in almost all of the active subdivisions except those for the very poorest housing, many of the homes are built by the subdivider owner or his associates. This practice is sharply in contrast to the sales practice of the twenties when very few of the properties were sold with homes. In real estate terms that period represented to a high degree an investment and speculators market, while the present period is largely a home buyers market. Necessarily a great deal more capital is required to promote a subdivision when the owner is engaged in building the homes and in supervising the growth of the subdivision over a long period. Much capital is required also for clearing the properties of tax delinquencies, making road improvements, landscape gardening, and sales promotion and advertising. Most of the better active subdivisions in the Park Ridge-Barrington Area appear to be backed by real estate firms or builders with adequate capital or credit to carry forward development for several years.

¹Knorr v. Hazen, 290 N.W. 351 (Mich.).

CHAPTER IV

NEW RESIDENTIAL GROWTH AND LAND PLANNING

In the Park Ridge - Barrington Area during the last few years many homes have been constructed, both in the new rural subdivisions and in certain of the older subdivisions, both suburban and rural. Some of the new growth has many of the attributes of good planning and in general represents wholesome and logical development. Other portions of the new growth have been permitted to develop without any co-ordinated plans and in disregard of most of the principles of good housing. Since failure to apply good planning practices is a major reason for the presence of much of the prematurely subdivided land in the Park Ridge - Barrington Area, the question arises as to whether or not the present new growth is adding seriously to already existing problems.

Out of 432 original subdivisions in the Park Ridge - Barrington Area only 52 have received notable new residential building within late years. The 52 subdivisions are distributed in 37 units of subdivided land, each composed of one or more subdivisions.¹ Twenty-three of these subdivision units have been subdivided since 1937; eleven were made during the 1920's; while three represent earlier subdivisions. With a few exceptions there was very little building in these subdivisions prior to the present period. It is in these subdivisions that neighborhood qualities of good and bad are being established and that effective land planning can be of great assistance.

Section 1. The Conformance of New Residential Growth to Sound Land Planning Practices

In attempting to evaluate the conformance of new residential growth to sound land planning practices, the approach may be made by comparing different subdivisions which have homes in the

¹For a list of the subdivision units and selected data concerning each see Table 19 in Appendix I.

same price bracket. Living values vary greatly between such subdivisions. Home purchasers are not prepared in general to appraise all the factors affecting their prospective homes, and as a result many subdivisions with inferior living qualities develop because of superior promotion and salesmanship. Three price groups are distinguished: (1) low price subdivisions with homes (dwelling and lot) selling for less than \$5,000; (2) medium price subdivisions, between \$5,000 and \$10,000; and (3) high price subdivisions, over \$10,000.

Comparison of subdivisions in the three price groups involves a consideration of what may be included under good planning practices for residential use. In recent years the principles of planning successful subdivisions for single-family homes have been given further study by the Federal Housing Administration. Through operation of the federal home mortgage insurance program the principles have been applied and tested and generally may be considered to represent the most advanced thought on planning problems in this field. The suggestions and conclusions of this body, as presented in numerous pamphlets and brochures, form part of the background for the analysis of subdivisions in the Park Ridge - Barrington Area.¹ The aspects of sound residential planning which are discussed under each subdivision price group may be outlined under the following ten headings: (1) balance of supply and demand for such housing; (2) attractive physical site and environs; (3) non-objectionable surrounding land use; (4) desirable existing residential use; (5) efficient subdivision layout; (6) suitable utility and street improvements; (7) reasonable taxes; (8) adequate zoning regulations and plat and deed restrictions; (9) accessibility to public transportation, employment,

¹The publications by the U.S. Federal Housing Administration of special value in this matter are:

Planning Profitable Neighborhoods, Technical Bulletin No. 7 (Washington: Government Printing Office, 1938).

Subdivision Standards, For the Insurance of Mortgages on Properties Located in Undeveloped Subdivisions, Circular No. 5 (Revised September 1, 1939; Washington: Government Printing Office, 1939).

Planning Neighborhoods for Small Houses, Technical Bulletin No. 5 (Revised February 1, 1939; Washington: Government Printing Office, 1939).

Successful Subdivisions, Planned as Neighborhoods for Profitable Investment and Appeal to Home Owners, Land Planning Bulletin No. 1 (Washington: Government Printing Office, 1940).

schools, churches, shopping, and other centers of social contact; and (10) co-ordination with community and regional plans.

Low Price Subdivisions

Seventeen subdivisions¹ developed for low priced homes in the Park Ridge - Barrington Area are experiencing or have experienced in recent years a notable amount of residential building. All of these subdivisions lie on unincorporated lands, and the major portion of them lie within the Maine or Park Ridge - Des Plaines district (Table 16). With one exception the balance of the active low price subdivisions may be found in the Palatine district. These subdivisions have been developed to attract the low income group, which has the largest potential demand for housing. Approximately 72 per cent of the families in Chicago could afford no higher housing expenditure than the amounts paid by the occupants of these subdivisions.² While possibly half of the Chicago families could not afford under any circumstances to own their own home, the other half under favorable conditions could make the necessary payments. This demand will increase with growing employment; with a declining amount of decent, low cost, urban housing; and with the continuation of the outward migration trend. The growth of industry in northwest Chicago will aid, while the rising costs of building materials will depress this demand.³ Competition comes mainly from areas to the south of Park Ridge and Des Plaines which have specialized in lower price residential developments, and which are nearer to the larger industrial sites in Maywood, Melrose Park, Cicero, and Clearing.

The topography, soil, drainage, and native vegetation or the natural characteristics of the site exhibit only minor varia-

¹The term "subdivision" here includes in its meaning any adjoining additions to the initial subdivision plat.

²It is estimated roughly that the monthly housing expenditures in the low priced residences of these subdivisions would be less than thirty-five dollars. The above percentage of Chicago's family population which could afford this expenditure was obtained through data presented in Tables 55 and 1 in the publication of U.S. Bureau of Labor Statistics, Family Income in Chicago, 1935-36, Bulletin No. 642, Vol. I (Washington: Government Printing Office, 1939).

³The recent war ban on the sale of rubber tires may completely halt the movement to the rural areas.

TABLE 16

DISTRIBUTION OF MAJOR ACTIVE SUBDIVISION UNITS
BY RESIDENTIAL PRICE CLASSES, 1941^a

		Low (under \$5,000)		Medium (\$5,000 - \$10,000)		High (Over \$10,000)	
		Subdi- visions	Lots	Subdi- visions	Lots	Subdi- visions	Lots
Rural District	Maine.....	12	1,060	4	760	..	..
	Prospect Hgts.	1	60	3	660	..	..
	Palatine.....	4	510	..	..	1	100
	Barrington....	..	..	..	..	1	400
	Sub-total..	17	1,630	7	1,420	2	500
Suburb	Park Ridge....	..	..	1	100	1	700
	Des Plaines...	..	..	2	420	1	440
	Mt. Prospect..	..	..	2	440	..	..
	Arlington Hgts.	..	..	2	230	2	990
	Palatine.....	..	..	..	..	..	..
	Barrington....	..	..	..	..	..	..
	Sub-total..	..	..	7	1,190	4	2,130
Total		17	1,630	14	2,610	6	2,630

^aCalculated from Table 19 in Appendix I.

tions between the different low price subdivisions. Of most significance is the slight difference in relief. In the Maine district the land is almost level, while near Palatine it is gently undulating. Drainage may be bad in the lower portions of all these subdivisions following periods of extremely wet weather. Almost every lot is treeless, since the subdivisions all were formerly cultivated farmland; and only two of the subdivisions in this group, namely Riverview Estates and Forest River, adjoin sites of county forest preserves (For location of all subdivisions see Fig. 9).

The character of land use surrounding the low price rural subdivisions is predominantly agricultural and not unattractive. Most of the subdivisions are isolated from one another and from older inactive subdivisions. In only one instance does a low-price subdivision adjoin an active subdivision of higher priced homes (Ballard Acres and Golf-Greenwood Gardens, a medium price subdivision, lying north of Park Ridge). Since the low price subdivisions, while numerous, are small in their individual extent, every lot is within one or two blocks of cultivated farm land. All of this means that each subdivision forms a small detached settlement, which is cut off from the broader social contacts of urban life.

Of much greater significance than the surrounding land use is the character of the existing residential use on the subdivision sites. The recent housing growth is influencing future development. The quality of residential construction and design without exception is poor (Fig. 4). In some cases it is very poor, particularly where small dwellings have been constructed by the lot owners themselves with second-hand lumber and tar paper roofing. Not a few of these shacks even remain unpainted. Subdivisions with more offenders of this type are Devon Avenue Farms, Oakton Gardens, Higgins - Devon Gardens, Anderson's Touhy Avenue Subdivision, Greater Palatine, and the several unnamed and unrecorded or metes and bounds subdivisions. Within these subdivisions there are some houses of distinctly better quality and even whole blocks of better quality. The quality of residential upkeep and landscaping is also poor in general, although a few subdivisions stand above the average (Fig. 5). Notable are Riverview Estates, Deer Grove Farms, and parts of several others. These are notable, because they show concerted effort to establish lawns and to set out trees and shrubbery.

Plat design in the low price subdivisions is strictly rectangular. There is not a curve in any of the subdivision layouts. In the Maine district the rectangular street pattern is adapted to the level land; in the Palatine district it does not fit the undulating surface as well. A more serious defect, which is found in almost every plat, is the existence of half-width streets along the tract boundaries. Lots which face these streets find them inadequate as service streets and also have the disadvantage of fronting away from the subdivision toward farm land,

which never may be subdivided. Dead-end streets are another major defect found in most of these subdivisions.

Large sized lots are a major attraction of the rural subdivision, regardless of price class. Among the low price subdivisions of the Park Ridge - Barrington Area lot size with a few exceptions ranges from a quarter acre to two acres with somewhat less than a half acre as average. Among the subdivisions with parcels smaller than the average are Riverview Estates, Forest River, and Greater Palatine. Only Higgins - Devon Gardens has lots smaller than 10,000 square feet, the minimum prescribed by rural zoning in Cook County.¹ This 10,000 square feet minimum was established, because experience in the Chicago area has indicated that private water supply and sanitation could not be safely assured in any smaller parcel. Very large lots may be found in Devon Avenue Farms, Deer Grove Farms, and Palatine Estates Unit No. 3.

Among the greater problems facing rural subdivisions and particularly low price subdivisions is the lack of adequate utilities and street improvements. All lots in low price subdivisions in the Park Ridge - Barrington Area must depend on individual wells for water and on septic tanks or outdoor toilets for sanitary facilities. The reasons are (1) that it would be difficult to secure water and sewer service from the nearest municipality because of distance and (2) that the low price subdivisions could not bear the cost of a public system. In subdivisions where the lot size is less than a half acre, it is possible that health problems may arise if and when they become fully settled. Only the poorer of the low price subdivisions have many outdoor toilets. Among these are Devon Avenue Farms, Anderson's Touhy Avenue Subdivision, Oakton Gardens, and Palatine Estates Unit No. 3. It is in these same subdivisions and others of little better quality that roads are very poor. Some of the streets never have been graded and are impassable. Others are lightly graveled and passable in most weather. Sidewalks and street lights, there are none, but electricity and telephone are available in all subdivisions. The cost of extending the latter, privately owned facilities was very little, since most of the rural area was supplied before the subdivisions were made.

¹Zoning Ordinance of Cook County, Illinois, sec. 7.

Taxes on real estate property vary a good deal among low price subdivisions in different parts of the Park Ridge - Barrington Area. Government services, which are provided from the taxes, also vary. Anderson's Touhy Avenue Subdivision and Oakton Gardens, both subdivisions with very low quality housing, had the highest tax rates (\$6.42 per hundred) for 1940 (For tax rates in all subdivisions see Table 19). These higher rates were due largely to the fact that these subdivisions lie in the Riverview school district of south Des Plaines, a district which possesses a fine large brick school. In the outer subdivisions, particularly in Palatine township, tax rates are lower partly because of lower school district levies. Here the rural schools are smaller and less well equipped. Palatine Estates Unit No. 3 had the lowest tax rate in the group (\$ 2.92). The higher tax rates in Maine and Leyden townships include a tax rate for the Sanitary District of Chicago, which renders no service to the isolated rural subdivisions.

Zoning is now operating in the Park Ridge - Barrington rural area to prevent much further expansion of small lot subdivisions. The Zoning Ordinance of Cook County provides that no parcels smaller than 20,000 square feet and with a frontage of less than 100 feet may be subdivided for residential use in all districts except those designated as R-4 or as business and industrial districts.¹ R-4 districts permit subdivision into lots no smaller than 10,000 square feet with frontages of no less than 60 feet. A great part of the land in the R-4 districts in the Park Ridge - Barrington rural area already is subdivided into lots of between 10,000 and 20,000 square feet. County zoning, furthermore, restricts new business use to small selected districts, preventing further development of the commercial ribbon type along highways. It prohibits spotty commercial development and other obnoxious uses within the subdivisions. The unrecorded subdivision directly north of Park Ridge, and Forest River subdivision illustrate how lack of commercial land use restrictions may injure residential developments. Other zoning regulations also operate to encourage more attractive residential use in all rural subdivisions. Among these are the provisions concerning minimum setbacks from roads,

¹Ibid., secs. 3-12.

minimum side-yards, vehicle parking space, water supply and sewage disposal, and the prohibition of advertising signs.

Zoning has its legal limitations in regulating land use but may be supplemented by recorded plat covenants and by deed restrictions on individual parcels. Among the low price subdivisions in the Park Ridge - Barrington Area only two possess plat covenants, and it appears from the character of the land use that very few of the remaining subdivisions have very much in the way of individual deed restrictions. The two subdivisions with plat covenants are Bartlett's Higgins Road Farms and Riverview Estates, which are among the better of the low price subdivisions. The plat restrictions on Riverview Estates, a very recent subdivision, illustrate an attempt on the part of the subdivider to prevent the development of objectionable features which have marred other low price subdivisions. Briefly outlined the restrictions are: (1) main dwelling shall have no less than 480 square feet of floor area; (2) dwelling shall cost no less than 2,500 dollars; (3) exterior of building shall be made of new material and painted, if frame, and all fences shall be painted; (4) roof pitch shall be no less than 30 degrees; (5) no outhouse toilets permitted; (6) occupants restricted to members of the Caucasian race; (7) no hog, goat, or mushroom farming; (8) business, commercial, and manufacturing uses not permitted except facing River Road; (9) no riding stables, saloons or amusement devices; (10) no obnoxious business or trade; and (11) no storage uses or parking. Some of these offenses are prohibited now by county zoning; others are not.

Lack of accessibility for the low price subdivisions is one of their greatest weaknesses. They are in the rural area, because land was cheaper there; and land was cheaper in large measure, because it was less accessible. Many of the workers in these subdivisions depend on their auto or their neighbor's auto for transportation to the railway station or to place of employment in the city. Local bus transportation into the nearest suburb is provided for eight of the low price subdivisions in the Maine district. The only ones which are more than a half mile from the routes used, are Devon Avenue Farms, Wolf Road Farms, and Touhy Avenue Subdivision. Outside of the Maine district none of the low price subdivisions have bus transportation.¹

¹A new policy of the Division of Defense Housing Co-

The distances of each of the subdivisions from the nearest suburban shopping center and railway station vary from slightly less than two miles to slightly over four miles. The distances from the high school, the suburban churches, and recreational attractions in the suburbs are about the same. Elementary schools are closer, but children in parts of some subdivisions must walk almost two miles to reach their classes. These long distances represent special handicaps in bad weather with subdivision roads in poor condition and sidewalks lacking altogether.

Rural subdivisions and especially the small low price subdivisions are very much out of harmony with community and regional plans. Their isolation and distance from economic and social centers place an additional strain on the public transportation system and on township road maintenance. The rapid addition to the rural population of many families with children upsets the rural school system by demanding an immediate increase in facilities. With increasing density of residential use the present methods of handling the water supply and sanitation problems may become inadequate, yet it is doubtful if suburban facilities ever may be extended. Nevertheless, it should be noted that many of these subdivisions, all those lying in Maine and Leyden townships, are within the Sanitary District of Chicago, which has a certain responsibility for eventually providing them with sanitary service. The fire problem is also a difficult one, both because water pressure is not available in the subdivisions and because fire fighters and equipment must be called from the nearest suburb. The scattering of low price subdivisions in the rural area also adds to the social welfare problem. The difficulty of lending public or private aid to these low income families in times of need is increased greatly by their dispersion. Finally, the orderly expansion of the suburbs is discouraged by the presence of outlying settlements of lower quality in most instances than the nearest suburban neighborhood.

Medium Price Subdivisions

In the medium price class there are fourteen active sub-

ordination requires that all new defense homes be located within walking distance (two miles) of common carrier transportation. Chicago Daily News, February 28, 1942, p. 24.

divisions of note in the Park Ridge - Barrington Area, of which number half lie within the suburbs (Table 16). Though slightly fewer than the active low price subdivisions they contain over 60 per cent more lots, and the average area of each subdivision is very much larger. Whereas the median sized subdivision in the low price group had an area of about 40 acres, the median of the medium price subdivisions is approximately 80 acres. Palatine Estates Unit No. 3, the largest of the low price subdivisions, has an area of about 200 acres which is only half of Prospect Heights' total of 400 acres (Fig. 9). Even the subdivisions within the suburban limits are rather large. Cumberland Terrace in Des Plaines, Busse's Eastern Addition (east half) in Mount Prospect, and Sherwood in Arlington Heights, each has close to 80 acres.

All of the medium price subdivisions are located within the inner portion of the Park Ridge - Barrington Area; none may be found beyond Arlington Heights (Table 16). The reason for this distribution may lie in the type of people seeking homes in this price bracket. They are office workers, skilled artisans, small business owners, and semi-professional people, most of whom work in Chicago and commute daily by train. Neither cheaper land nor scenic qualities of residences in the Palatine and Barrington communities can balance the greater convenience of nearer-in locations. The income group from which occupants can be drawn for the medium price subdivisions is smaller than the group which might be interested in low price subdivisions, but it is still large. It is estimated that 26 per cent of Chicago families could afford housing in these subdivisions.¹ Competition faced by the medium price subdivisions comes from other suburban extensions and from Chicago and also from older Park Ridge - Barrington neighborhoods, which still offer numerous scattered sites for building.

The physical sites of the medium price subdivisions have little to distinguish them from those of the low price subdivisions. They are predominantly level, although Sherwood and Prospect Heights do show some variation in relief. The water table is high in wet weather, and drainage has been poor in some sub-

¹Estimated monthly housing expenditures in the medium priced residences of these subdivisions would range from \$35 to \$60. Cf. footnote 2, p. 99.

divisions. In Cumberland Terrace and in Glenview Countryside low lying parcels frequently have been under water, but means have been taken now to correct this situation. Most of the subdivisions are treeless except for recent plantings. Mitchell's Addition in Arlington Heights and Busse's Eastern Addition in Mount Prospect are exceptions and possess trees set out many years ago.

The medium price subdivisions in the rural area, like the low price subdivisions, are isolated and in most cases completely surrounded by farmland. However, the larger individual sizes of these subdivision settlements tend to minimize the handicaps of isolation. The subdivisions within the suburban limits adjoin farmland, vacant or inactive subdivisions, and older suburban neighborhoods. Cumberland Terrace, which is within the limits of Des Plaines, strangely is almost completely surrounded by farmland.

In all of these subdivisions much residential construction has been carried forward in the last three or four years, and in not a few of the blocks more than half of the parcels are already in use. The character of this new growth is setting the standard for present and future growth. The quality of construction and design varies remarkably for the different subdivisions, but in almost all cases is higher than what may be found in the low price subdivisions. The standards are lower in Glen Acres, Elmore's Higgins Road Farms, and Arlington Crest Estates but distinctly higher in Shannon and Canfield's Addition, Golf - Greenwood Gardens, Busse's Eastern Addition, Laudermilk Villa, Prospect Heights, and Sherwood. While parts of the latter subdivisions may be only average, other parts exhibit evidence of very good building practices and very attractive architecture and layout. In almost all cases the medium price active subdivisions fail to measure up to first class landscaping, a shortcoming which must be charged largely to their newness.

Street and lot layout in the medium price subdivisions has received careful attention in many cases, but this has not prevented certain mistakes from being made. Some of the subdivision plats are strictly rectangular, among which may be noted Elmore's Higgins Road Farms, Arlington Crest Estates, Mitchell's Addition, Laudermilk Villa, Busse's Eastern Addition and Shannon and Canfield's Addition. The first two represent subdivisions with housing standards below the average, and the last four are

older subdivisions made before the benefits from employing modern principles of plat design were widely recognized. Many of the subdivisions have a modified rectangular design. Golf - Greenwood Gardens, Glenview Countryside, and Cumberland Terrace are good examples. Sherwood is the only subdivision with all curved streets and fortunately a subdivision with some relief where curved streets following the topography serve a useful purpose. Prospect Heights has a combination of the rectangular and the curved street patterns. Interestingly, the later additions to this community have been designed with curved streets. Streets on tract boundaries and dead-end streets are the major mistakes in layout for the medium price subdivisions as well as for the low price subdivisions. Worst offenders in this respect are Elmore's Higgins Road Farms and Sherwood. Good use of cul-de-sacs in a small property is illustrated by Cumberland East. Provision in this subdivision also is made for lots to face away from rather than toward the bounding major highway artery, Golf Road. Protection of front lots from highway annoyances is provided at Golf - Greenwood Gardens by means of a front service drive. Other subdivisions on major traffic arteries which have made no such provisions are: Glen Acres, facing both Touhy Avenue and Mannheim Road; Cumberland Terrace on Golf Road; and Arlington Crest Estates on Northwest Highway.

Like the rural low price subdivision the rural medium price subdivision in general possesses large sized lots with about a half acre being average. Subdivisions considerably below the average are Elmore's Higgins Road Farms and Glenview Countryside.¹ Prospect Heights and Arlington Vista, both out where land has lower value, offer larger parcels. In contrast, the suburban medium price subdivisions have standard sized lots measuring about 50 feet by 150 feet. Sherwood is an exception with some lots over a half acre.

Among other requirements of good plat design are provisions for parks and in certain situations for commercial use. Of all the fourteen active subdivisions in the medium price group only Lauder milk Villa and Cumberland East have set aside any land for parks in the recorded plats. Prospect Heights has some low

¹The recent addition to Glenview Countryside has larger lots.

lying unsubdivided land which would be suitable for park use, but it has not been dedicated for recreational use. While several of the subdivisions have designated a few lots for commercial use, the new zoning ordinance permits such use at highway intersections in only three of the rural medium price subdivisions, namely Prospect Heights, Glenview Countryside, and Arlington Crest Estates. The only planned business center in any of the active subdivisions is at Prospect Heights. It is well laid out, attractive, and greatly needed in that large but isolated community.

Street improvements in the medium price subdivisions are very much better than in the low price subdivisions, yet very few of the streets are paved. Well-graveled, all-weather roads predominate. Even among the seven suburban subdivisions only four have paved streets. These are Shannon and Canfield's Addition, Busse's Eastern Addition, Laudermilk Villa, and Mitchell's Addition. In the rural area individual wells satisfy water needs, although one exception may be noted at Glenview Countryside, where a privately owned water system is in use. Sanitation needs are cared for by septic tanks. Suburban subdivisions in most cases depend on public systems for both services. Exceptions here are Cumberland Terrace, which lacks public sewerage facilities, and Sherwood and Cumberland East, which have no access to public water systems. Electricity and telephone services are available in all subdivisions, and gas in all suburban subdivisions and also in Prospect Heights, Glenview Countryside, and Glen Acres.

The average tax rate of the medium price subdivisions is but a little higher than that of the low price subdivisions (\$5.25 per hundred in comparison with \$4.66), despite the fact that half of the former subdivisions lie within suburban boundaries. The two subdivisions in Mount Prospect have a lower tax rate than eight of the subdivisions in the lower price bracket. The lower total rate in Mount Prospect results from a lower municipal tax rate and from lower school tax rates. Cumberland Terrace and Cumberland East in Des Plaines have the highest tax rate (\$7.63), while Glenview Countryside has the lowest (\$3.19).

Rural zoning is helping only in a small way to establish and maintain amenities in the medium price rural subdivisions, because most of these subdivisions already were observing the regulations which it has imposed. Indeed, almost every subdivision including the suburban ones, in observing the regulations

prescribed by plat covenants or individual deed agreements, is conforming to a stricter program than that of the rural zoning measures. With one exception, Glenview Countryside, all of the medium price active subdivisions recorded during the last ten years have been accompanied by some form of plat covenant. More important provisions in some of these covenants and provisions not made in the covenants of low price subdivisions are: (1) restrictions limited to 25 years; (2) no lot resubdivision with certain exceptions noted; (3) minimum building cost restrictions of \$4,500 or higher; (4) minimum floor area requirements of 500 square feet; (5) temporary residences banned; (6) approval of architectural design and building location by local committee; and (7) prescribed enforcement procedures. Most comprehensive and adequate of the plat covenants are those of Prospect Heights and Golf - Greenwood Gardens.

Only four of the fourteen medium price active subdivisions in the Park Ridge - Barrington Area are well located. Only Shannon and Canfield's Addition in Park Ridge, Busse's Eastern Addition and Laudermilk Villa in Mount Prospect, and Mitchell's Addition in Arlington Heights are within reasonable walking distance of schools, churches, shopping facilities, and railway stations. The other ten are as much as four miles from certain of these centers. Of these, almost half have no bus service, among which are Elmore's Higgins Road Farms, Sherwood, Arlington Crest Estates, and Arlington Vista. Since many, if not most, of the employed occupants commute daily by rail to Chicago, the added time, inconvenience, and cost of auto or bus travel to the station are handicaps of living in these subdivisions. This local transportation problem may become increasingly acute during the war period.

All isolated subdivisions in the Park Ridge - Barrington Area regardless of price class represent greater or lesser maladjustments in community and regional plans. Some of these maladjustments were discussed previously.¹ If the benefits of large homesites and much open space outweigh the values of accessibility and local improvements, possibly community and regional plans should be revised. On the other hand, there is the possibility that good planning could achieve both ends by making use of land near the suburban borders.

¹See p. 105.

High Price Subdivisions

Only six subdivisions in the high price bracket are active in the Park Ridge - Barrington Area, yet these subdivisions contain approximately 2,630 lots. About the same number of lots may be found in the medium price group, but there are only 1,630 in the low price group (Table 16). Because of the small size of many of the lots the total area covered by high price subdivisions is much less than the area encompassed by either of the lower price subdivision groups. Four of the subdivisions are within suburban boundaries, namely Devonshire Terrace in Park Ridge, Cumberland in Des Plaines, and Scarsdale and Stonegate in Arlington Heights. Both the rural subdivisions are farther out, Inverness, northwest of Palatine, and Barrington - Biltmore Estates, north of Barrington in Lake County. It is estimated carefully at the present time that less than 500 of the total lots in these subdivisions are in residential use, the remainder lying idle. While a number of new homes were erected in each of these subdivisions during 1941,¹ it appears now, in view of the ban on acquiring materials for houses costing over 6,000 dollars, that no further building will be initiated in these subdivisions until the war is ended. From the long range point of view, as well as the short range, the supply of high price subdivision parcels is much more than adequate. It is excessive! All except one of the subdivisions, Inverness, were made during the 1920's, yet in very few blocks does occupied land exceed vacant land (Fig. 2). Only about 2 per cent of the families living in Chicago could afford homes in these subdivisions. Such a figure, of course, is not an accurate picture of the demand, since most of the families settling in these northwest high price subdivisions are coming and will come from northshore and western suburbs. It is the high price subdivisions in these two other sectors of the Chicago suburban area which also will provide the greatest competition for the northwest subdivisions.

Several of the high price subdivisions have site qualities of special attraction. The rural subdivisions were laid out around private golf courses, and each possesses a rolling topog-

¹Building was not resumed in Stonegate and Cumberland until 1941.

raphy. Clumps of large hardwood trees scattered through the subdivisions enhance the scenery. Two small lakes at Barrington - Biltmore are additional natural attractions. Scarsdale was formerly a plant nursery, and following its subdivision the shrubs and small trees were transplanted to locations which fit in with the plat layout. Devonshire Terrace has a natural hardwood grove at its western end adjoining the forest preserve. The eastern half immediately after its subdivision in 1924 was planted with poplar trees, which now are very large and afford a great deal of shade.

The character of surrounding land use is extremely important to the high price developments. Unfavorable adjoining use easily can ruin values and living conditions in a high quality subdivision. In the Park Ridge - Barrington Area it appears that the major hazard to the high price subdivision lies in the redevelopment of adjoining or neighboring inactive subdivisions as cheap low quality housing areas. Inverness, for illustration, adjoins a low price subdivision to the west and also has many low price subdivisions as its neighbors in the Palatine district. Scarsdale, Stonegate, Cumberland, and Devonshire all adjoin inactive and either vacant or sparsely settled subdivisions.

The present quality of the development in these subdivisions is first class. Medium sized homes of very attractive architecture and good construction and with fine landscaping and maintenance are the rule. One exception may be noted in Barrington - Biltmore Estates where the northeast quarter does not measure up to the high standards elsewhere. The community was developed in the twenties as a summer resort, but only about twenty-five cottages were erected. The majority of these have been converted into year-around residences but still represent something below the quality level at which the Estates now are being developed. In contrast, the recently subdivided western portion is planned for costly country estates from four to sixteen acres.

The layouts of the high price subdivisions in general show more careful planning than the lower price subdivisions. Streets are designed to fit the contours in the outlying rural subdivisions of Inverness and Barrington-Biltmore. Stonegate has a pleasing curved design, which also serves the useful purpose of focusing traffic into Arlington Heights or unto the Northwest Highway which leads into Chicago. Cumberland has a modified rec-

tangular design, while Devonshire Terrace is strictly rectangular. The modified rectangular design of Scarsdale is attractive but poorly adapted to the needs of the subdivision. The layout is marred by the exclusion of a small piece of land northwest of the plat. It is through this property that Scarsdale's approach to the center of Arlington Heights should have been placed rather than to the west. The failure to include this property also isolated the northeast portion of the subdivision and was a factor contributing to the laying out of numerous dead-end streets.

Two other faults in design of a conspicuous nature may be noted. Streets on tract boundaries are serious errors in the plats of Scarsdale, Stonegate, and Cumberland. With few exceptions residential use thus far has avoided lots facing on these streets. The other fault is the excessive platting of lots for commercial use. This conclusion seems unescapable in view of the fact that only five lots are now in commercial use out of more than four hundred lots so designated in the three subdivisions of Scarsdale, Stonegate, and Cumberland. The excessive platting of commercial lots is a problem not easily corrected, because many of the lots, if not almost all, are ill suited for residential use because of size, shape, and location.

The average size of lots in the high price rural subdivisions is about one acre, which is larger than in the lower price rural subdivisions. Lots in all suburban subdivisions are roughly of equal size (approximately 50 feet by 130 feet), but in many instances in the high price subdivisions a lot and a half or two lots are used for one homesite.

Utilities and street improvements appear to be adequate for both present and future needs in the high price subdivisions. Paved roads are lacking in the rural subdivisions, but with large sized homesites local traffic is lighter and well maintained gravel roads are sufficient.

Tax rates are high in the high price suburban subdivisions (averaging \$6.89) but lower in Inverness and Barrington - Biltmore, where public facilities are fewer.

Plat covenants are lacking completely among the high price subdivisions, because most of the subdivisions were made more than a decade ago when the value of recording property restrictions with the official plat was less widely recognized. Deed restrictions take their place with few but very stringent

provisions for maintaining high quality. Reliance is placed chiefly either on minimum dwelling costs or on approval of architectural design and construction by a property owners' committee.

Zoning restrictions are of some value to high price subdivisions in protecting them from the development of unfavorable adjoining uses. No land around Inverness may be subdivided into parcels of less than 20,000 square feet, and all building is subject to restrictions imposed by the Cook County Zoning Ordinance. The land surrounding Barrington - Biltmore Estates is subject to similar provisions imposed by the Lake County Zoning Ordinance. Local zoning ordinances in all the suburbs protect single-family residential use from encroaching uses.

Accessibility is a characteristic which has less significance for high price subdivisions. All homes in these subdivisions have at least one car, and the residents can afford the greater distances from the standpoint of both the additional time and the cost of transportation involved. Differences between the subdivisions in accessibility, nevertheless, do exist. Scarsdale is the best located, being within walking distance of railway station, shopping, schools, churches, and other village facilities. Stonegate, Cumberland, and Devonshire Terrace are off-center in their respective suburbs and, therefore, less convenient to most local centers of interest. Barrington - Biltmore and Inverness are isolated in the country, and the latter has no bus transportation.

Isolated high price subdivisions create community and regional planning maladjustments similar to those caused by lower price subdivisions. There is the compensation for local governments, however, that the former add heavily to the tax base and also can afford considerably higher tax rates.

Section 2. Future Planning for the Area

Comprehensive and co-ordinated land use planning in the Park Ridge - Barrington Area never has existed in the past and does not exist today. The suburbs have grown through an accumulation of real estate developments of which some were fairly well-planned and executed and others were purely speculative ventures, showing only slight regard or appreciation for attractive living conditions. A most forceful illustration of the failure to co-

ordinate plans is provided by the pattern of subdivisions (Fig. 9). Each of the suburbs possesses an extremely irregular mass of subdivided land with some subdivisions completely separated from the main body of the suburb and others protruding out into the rural area in long finger-like projections. Also, the patchwork formed by many small subdivision units in parts of these suburbs gives intimation of the practical impossibility of carrying through careful layout and housing programs. The haphazard scattering of subdivisions in the unincorporated area surrounding the suburbs indicates even more conclusively the failure on the part of the developers to visualize their settlements as units in a larger community.

The lack of comprehensive planning within the Park Ridge - Barrington Area in the past has resulted in serious land maladjustment problems--problems of poor housing, of poor layout, of poor location, of premature subdividing, and the like. New residential growth not only is failing to alleviate these problems but actually is extending their distribution and intensifying their total effects. This conclusion may be drawn from the previous section of this chapter in which new residential growth in the Park Ridge - Barrington Area was described in terms of its observance of certain tested principles of planning practice and found to fall far short of the ideal standards. In summary, the low price rural subdivisions generally are bad in many respects. Sites may be low and flat, and drainage poor; housing with few exceptions is of poor construction, design, and maintenance; street and lot layouts, having been given little attention, are inadequate; and local improvements are unsatisfactory. Few of the subdivisions possess any restrictions on land use or housing so that many objectionable features may and do arise. Furthermore, they all are isolated more or less from schools, shopping, transportation, and other social contacts.¹ The medium and even the high price subdivisions also fail to measure up to desirable modern requirements. Both groups show very fundamental errors in street and lot layouts, and many of the subdivisions in both groups possess fairly inaccessible locations. Not even all of the medium price subdivisions have good housing, and a serious

¹The war ban on the sale of rubber tires promises shortly to make these isolated subdivisions much less accessible.

defect in the planning of high price subdivisions is their excessive supply of lots, which appears to be much greater than the demand for many years to come.

New residential growth, moreover, is not reducing the total amount of prematurely subdivided land. The majority of the new growth subdivisions are of recent recording, and all are occupied only in part. If local residential construction stops completely, as it already threatens to do because of war conditions, these subdivisions will be added to literally scores of other inactive and sparsely settled subdivisions now existent in the Park Ridge - Barrington Area. With already considerably more than half of the total residential land vacant in each of the suburbs and rural districts, the immediate prospect of no further new growth greatly increases the seriousness of the premature subdivision problem.

Responsible public planning for land use must be instituted in the Park Ridge - Barrington Area, both to eliminate errors from present and future developments and to provide for the liquidation of past errors. In solving the problems of land maladjustment, planning not only will increase the social and esthetic amenities of living in the Park Ridge - Barrington Area but probably also will raise land and property values for the residences now present. The suburban and other local governmental bodies in turn will be benefited through the appreciation of the total tax base and the return of tax delinquent properties to a contributory status.

The present is a most opportune time to begin laying plans for curing the maladjustments in land use in the Park Ridge - Barrington Area. Because of the war situation and the absence of large defense employment in or very near the area, residential growth will stagnate more or less for the duration of the war period. Following the successful conclusion of the war, a long pent-up demand for new housing (with governmental assistance) is very likely to engulf the Park Ridge - Barrington Area as well as other rural-urban fringe areas with good commutation. If plans to correct the present land maladjustments are not already made, many of the present errors will be repeated. Furthermore, with increasing new residential growth in these suburbs, a wider distribution of rural subdivisions, and progressive deterioration of older housing, the difficulties in solving land use problems will

become ever and ever more complex.

Assuming that public planning in some form is established in the area, a program for residential redevelopment and growth will need to be adopted. In such a program the time sequence in residential redevelopment, or the priorities of residential planning needs, must be determined if the greatest good is to be achieved. The results of this study indicate that land use planning problems should be attacked first in the areas of new growth. Here, some of the errors in planning may be averted before they are made. Second priority should be given to the inactive subdivisions with the better locations. In this connection means must be found for solving, among others, the problems of tax delinquency, excessive deed and covenant restrictions, and financial requirements for redevelopment. Thirdly, the older cores of each of the suburbs are beginning to deteriorate, and measures must be taken to preserve their amenities. Fourth are the other inactive subdivisions of which some may be returned to active rural use and others redeveloped in accordance with the requirements of the whole. The balance of the subdivided land, which was built up rather compactly during the decade of the twenties, requires at present only minor attention.

Certain conclusions also may be drawn from this study which should aid in planning the broader functional patterns of land use in the Park Ridge - Barrington Area.

Residence for commuters apparently will continue as the dominant functional land use. The types of residence demanded by new suburban settlers, however, are changing. Rural subdivisions, for example, have attracted many residents in recent years, largely because they offered larger homesites, more open space, and lower land costs. In the suburbs the replanning of subdivision sites in many instances may achieve these attractive qualities and others. The different types of demand must be analyzed further, and homesites laid out in accordance with their requirements.

Suburban shopping centers will retain their distinctly local trading quality, unless there should be a very great gain in population. However, such a gain is not likely.

No hope is entertained for large industrial expansion, but there is much opportunity for the continued introduction of new light industries and the further growth of existing industries.

The area devoted to parks and playgrounds should be increased considerably in most suburbs. The increase may well be achieved by devoting portions of the unsettled subdivision sites to these recreational purposes.

Suburban school requirements will have to be reconsidered as subdivision redevelopment progresses, and the systems replanned accordingly. In rural areas replanning through consolidation or boundary readjustment of school districts is needed in order that the settlements may be better served.

In transportation there is the long range need for a direct superhighway to Chicago's Loop. Of immediate importance, in view of war restrictions on auto use, are more feeder bus lines from some of the rural areas to suburban railway stations.

Finally, in connection with the future planning of the Park Ridge - Barrington Area, there arises the question as to who will assume the responsibility and the direction of the planning. For the suburbs the logical agency is the local planning commission, which everyone of the suburbs possesses. Unfortunately, the planning commissions have taken a limited view of planning and have had little or no assistance from professional planners. The employment of professional advice certainly would repay the suburbs many times over. For the rural portion of the Park Ridge - Barrington Area there is no official planning body, although some planning control is exercised by the interested counties in zoning and subdivision platting. Official county or regional planning is required and fortunately may be organized under the laws of the State of Illinois.¹

Future planning in the Park Ridge - Barrington Area, to be successful, will require the understanding, the support, and the participation of the people. Many of the realtors and the local business and professional people, who have a double interest in the communities because of business and home, could aid greatly in stimulating an interest on the part of the public in local land use planning. In view of the fast changing conditions in the world today, if land in the Park Ridge - Barrington Area is to be used wisely, it is vital that appropriate planning measures be instituted at an early date.

¹Ill. Rev. Stats. (Smith-Hurd), c. 34 § 152a-d.

APPENDIX I

SUPPLEMENTARY TABLES

TABLE 17

POPULATION OF THE PARK RIDGE - BARRINGTON SUBURES, 1880 - 1940^a

Suburb	Year						
	1880	1890	1900	1910	1920	1930	1940
Park Ridge.....	457	987	1,340	2,009	3,383	10,417	12,063
Des Plaines.....	818	986	1,666	2,348	3,451	8,798	9,518
Mt. Prospect.....	...	...	...	...	349	1,225	1,720
Arlington Heights	995	1,424	1,380	1,943	2,250	4,997	5,668
Palatine.....	731	891	1,020	1,144	1,210	2,118	2,222
Barrington.....	410	848	1,162	1,444	1,743	3,213	3,560
Total.....	3,411	5,136	6,568	8,888	12,386	30,768	34,751

^aSixteenth Census of the United States: 1940. Population, First Series, Number of Inhabitants, Illinois (Washington: Government Printing Office, 1941), pp. 6-24, and earlier census volumes.

TABLE 18

NUMBER AND DISTRIBUTION OF ORIGINAL BLOCK AND LOT SUBDIVISIONS
RECORDED AND NOT VACATED IN THE PARK RIDGE - BARRINGTON
AREA BY SUBURBS AND RURAL DISTRICTS, 1854 - 1941^a

Year	Suburb						Rural District				Total
	Park Ridge	Des Plaines	Mount Prospect	Arlington Heights	Palatine	Barrington	Maine	Prospect Heights	Palatine	Barrington	
1854	.	.	.	1	.	1	.	.	.	.	2
1855	.	.	.	.	1	1	.	.	.	.	2
1856	.	.	.	.	1	.	.	.	.	.	1
1857	1	1	.	.	.	.	.	.	.	.	2
1858	.	.	.	2	.	.	.	.	.	.	2
1859	.	.	.	2	.	.	.	.	.	.	2

TABLE 18 - Continued

Year	Suburb						Rural District				Total
	Park Ridge	Des Plaines	Mount Prospect	Arlington Heights	Palatine	Barrington	Maine	Prospect Heights	Palatine	Barrington	
1905	.	.	.	.	.	.	.	.	.	.	.
1906	1	.	.	1	.	3	.	.	.	.	5
1907	1	.	.	2	.	.	.	.	.	.	3
1908	.	.	.	1	.	.	.	.	.	.	1
1909	1	.	.	1	1	1	.	.	.	.	4
1910	.	.	.	.	.	.	.	.	.	.	.
1911	2	3	.	1	.	3	.	.	.	.	9
1912	1	.	1	.	1	.	.	.	.	.	3
1913	.	.	.	1	.	.	.	.	.	.	1
1914	2	1	.	.	.	2	1	.	.	.	6
1915	1	1	1	1	.	.	.	.	.	.	4
1916	.	1	.	2	.	.	.	.	.	.	3
1917	.	.	.	.	.	.	1	.	.	.	1
1918	.	.	1	.	.	.	.	.	.	.	1
1919	1	3	.	1	.	.	.	.	1	.	6
1920	2	1	.	1	.	.	.	.	1	.	5
1921	4	.	.	1	.	1	.	.	.	.	6
1922	1	2	1	6	1	1	1	.	3	.	16
1923	7	.	.	.	.	.	2	.	.	.	9
1924	37	1	.	7	.	1	1	.	.	.	47
1925	13	1	3	3	5	8	1	.	1	.	35
1926	12	.	11	7	7	8	1	.	.	.	63
1927	3	4	2	3	3	3	7	3	11	3	32
1928	4	2	1	.	1	.	1	2	5	2	16
1929	3	2	2	3	.	1	2	1	4	3	21
1930	.	.	1	1	1	.	.	.	.	1	4
1931	.	1	.	.	.	.	.	.	.	.	.
1932	.	.	.	.	.	.	.	.	.	.	1
1933	.	.	.	.	.	.	.	.	.	.	.
1934	.	.	.	.	.	.	1	1	.	.	2
1935	.	.	.	.	.	.	1	.	.	.	1
1936	.	.	.	.	.	.	1	.	.	.	1
1937	.	.	.	.	.	.	4	3	.	.	8
1938	.	2	.	.	.	.	2	1	1	1	7
1939	1	1	1	.	.	.	4	4	1	.	12
1940	1	.	.	.	.	.	3	2	.	.	6
1941	2	.	.	.	.	.	1	2	1	.	6
Total	125	46	26	59	27	41	42	19	32	15	432

^aCompiled from manuscript maps made by the author from official records kept by the recorders of Cook and Lake counties, Illinois.

TABLE 19

SELECTED DATA ON MAJOR ACTIVE SUBDIVISION UNITS IN THE
PARK RIDGE - BARRINGTON AREA, 1941

Name	Location by Rural District or Suburb ^a	Number of Subdivisions ^a	Date of Subdivisions ^b
I. Low Price Subdivisions^c			
Riverview Estates.....	Maine district	1	40/4
Higgins - Devon Gardens.....	" "	1	25/11
Higgins Road Farms.....	" "	1	38/12
Unrecorded Subdivision (adjoining Higgins Rd. Farms)	" "	1	38
Devon Avenue Farms.....	" "	1	38/7
Wolf Road Farms.....	" "	1	40/12
Anderson's Touhy Avenue Subdivision (unrecorded).	" "	1	37 (?)
Oakton Gardens.....	" "	1	37/5
Unrecorded Subdivision (north of Park Ridge)....	" "	1	36 (?)
Ballard Acres.....	" "	1	36/10
Unrecorded Subdivision (east of Des Plaines)....	" "	1	37 (?)
Forest River.....	" "	2	34/11; 35/12
Unrecorded Subdivision (north of Arlington Hgts.)	Prospect Hgts. district	1	36 (?)
Palatine Estates Unit No. 3	Palatine district	1	27/3
Palatine Acres.....	" "	1	26/6
Greater Palatine.....	" "	1	26/9
Deer Grove Farms.....	" "	1	38/7

^aSee Fig. 9.

^bFrom plat books and plat indexes in the offices of recorders of Cook and Lake counties.

^cFrom official plat books and from official city and village maps.

^dIllinois State Tax Commission, Atlas of Taxing Units,

TABLE 19 - Continued

Number of Lots ^c	Average Size of Lots (sq.ft.) ^c	Plat Cove- nant ^b	Tax Rate, 1940 ^d (per \$100)	Developer
87	10,800	Yes	4.98	F. H. Bartlett & Co.
225	3,690	No	4.98	L. W. Dyniewicz
65	27,000	Yes	4.98	F. H. Bartlett & Co.
?	50,000	No	4.98	F. H. Bartlett & Co.
63	45,000	No	4.37	Elmore Real Est. Impr. Co.
47	45,000	No	4.37	Elmore Real Est. Impr. Co.
?	?	No	6.42	Anderson
94	18,000	No	6.42	?
?	?	No	4.98	?
76	17,700	No	4.98	C. J. Ruby
?	?	No	5.98	?
246	16,850	No	3.79	J. E. Merrion & Co.
?	?	No	4.23	?
190	60,000	No	2.92	A. T. McIntosh & Co.
73	19,000	No	3.70	F. E. Merrill & Co.
198	11,400	No	3.70	F. E. Merrill & Co.
47	45,000	No	3.70	A. T. McIntosh & Co.

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^cSubdivisions grouped according to approximate market price of dwelling and land: low price, less than \$5,000; medium price, \$5,000 to \$10,000; high price, over \$10,000.

TABLE 19 - Continued

Name	Location by Rural District or Suburb ^a	Number of Subdivisions ^a	Date of Subdivisions ^b
II. Medium Price Subdivisions ^e			
Elmore's Higgins Road Farms	Maine district	1	37/11
Glen Acres.....	" "	3	39/7;40/8; 40/8
Golf - Greenwood Gardens....	" "	1	39/6
Glenview Countryside.....	" "	2	39/12;41/6
Shannon & Canfield's Addition	Park Ridge	1	73/9 ^f
Cumberland Terrace.....	Des Plaines	1	38/10
Cumberland East.....	" "	1	39/12
Prospect Heights.....	Prospect Hgts. district	6	37/1;37/5; 38/5;39/1; 39/7;40/11
Arlington Vista.....	" "	1	37/1
Arlington Crest Estates....	" "	1	39/10
Busse's Eastern Addition (east half).....	Mount Prospect	1	18/3 ^g
Laudermilk Villa.....	" "	1	27/8
Mitchell's Addition.....	Arlington Heights	1	76/1
Sherwood.....	" "	1	30/7
III. High Price Subdivisions ^e			
Devonshire Terrace.....	Park Ridge	4	24/5;25/2; 25/9;26/3
Cumberland.....	Des Plaines	1	28/2
Scarsdale.....	Arlington Heights	1	29/1
Stonegate.....	" "	1	27/11 ^h
Inverness Countryside.....	Palatine district	2 ^j	39/10;41/2
Barrington - Biltmore Estates.....	Barrington district	7 ^k	26/7;28/12; 29/6;29/8; 29/9;30/8; 38/12

^fResubdivided in 90's and 20's.^gResubdivided in 20's.^hResubdivided 28/2.

TABLE 19 - Continued

Number of Lots ^c	Average Size of Lots (sq.ft.) ^c	Plat Cove- nant ^b	Tax Rate, 1940 ^d (per \$100)	Developer
36	9,000	Yes	4.41	Elmore Real Est. Impr. Co.
244	18,500	Yes	4.41	Oliver Salinger Co.
74	16,650	Yes	4.98	J. P. Leonard
410	12,000	No	3.19	A. T. McIntosh & Co.
100	6,500	Yes	7.52	Gillick <u>et al.</u>
350	8,250	Yes	7.63	Branigar Organization
69	7,500	Yes	7.63	H. M. Cornell & Co.
516	30,000	Yes	4.20	Smith & Dawson
31	40,000	Yes	3.43	?
108	39,000	Yes	3.91	Robt. Bartlett Realty Co.
240	8,000	No	4.69	Mt. Prospect Develop. Assoc.
207	7,500	No	4.75	Town and Country Estates
100	3,200	No	6.20	J. P. and J. W. O'Conner
129	20,000	No	5.55	H. Jacobson
700	6,250	No	7.52	Hulbert (orig.)
440 ¹	6,500	No	7.63	H. M. Cornell & Co.
620 ¹	6,500	No	6.20	W. C. Tackett, Inc.
370 ¹	7,500	No	6.20	W. C. Tackett, Inc.
100	40,000	No	4.11	A. T. McIntosh & Co.
400	40,000	No	3.39	Elmore Real Est. Impr. Co.

¹Business lots included in this figure are counted as half-lots.

^jOne subdivision at Inverness has received no building.

^kOnly three subdivisions at Barrington - Biltmore are active.

APPENDIX II

NOTES ON THE FIGURES

Figure 1. Radial Suburban Extensions in the Chicago Area

Base map: Chicago Regional Planning Association, An unpublished political base map of the vicinity of Chicago, 1938. Scale: one inch equals 2 miles.

Settled land (or built-up area) from map prepared by the author for the Chicago Plan Commission. See Chicago Plan Commission, Population Facts for Planning Chicago (Chicago: Chicago Plan Commission, 1942), Fig. 5, p. 22.

Figure 2. Pattern of Residential Use Density

Base map: From Cook County Highway Department, "Barrington, Elk Grove, Leyden, Maine, Niles, Northfield, Norwood Park, Palatine, and Schaumburg Townships" (Chicago: Cook County Highway Department, April, 1939 and 1940). Scale: four inches equals one mile. Also from Lake County Superintendent of Highways, "Cuba, Ela, and Vernon Townships" (Waukegan: Lake County Superintendent of Highways, October, 1938). Varying scales. The tracing prepared from these maps was reduced in scale a little more than a half and used as the base map for Figures 2 - 9.

Residential use density of subdivided blocks is from aerial photographs of Cook County taken in 1939 and on file at the office of the Chicago Regional Planning Association. Scale: one inch equals ca. a tenth of a mile. Data was brought up to date in summer of 1940 by field mapping.

Location of rural non-farm residences from Illinois State Division of Highways, "General Highway and Transportation Maps. Sheets for Cook and Lake counties," Prepared in co-operation with U.S. Bureau of Public Roads from data obtained by State-wide Highway Planning Survey ([Springfield]: Illinois State Division of Highways, January, 1939). These maps show all rural residences and make a distinction between "farm unit" and "dwelling." This distinction is amplified by a letter from Mr. F. N. Barker, Engineer of Highway Research, Division of Highways, Springfield, Illinois. He states that

. . . . in general the following definitions apply:

Farm unit--A residence outside of incorporated areas with one or more general farm buildings from which general farm operations are conducted.

Dwelling--A residence outside of incorporated areas which is not for general farming purposes. The small gardens and poultry farms which are conducted obviously as a side line by the resident are included in this group.

Figure 3. Pattern of Residential Age

The age of residential structures was determined from field mapping, from examination of cultural features on topographic maps of the U.S. Geological Survey which surveyed this area in 1925, 1926, and 1927, and from review and checking with realtors and municipal officials.

Figure 4. Pattern of Residential Construction and Design

Data from field mapping. See pp. 27-29.

Figure 5. Pattern of Residential Upkeep and Landscaping

Data from field mapping. See pp. 29-30.

Figure 6. Time Sequence Pattern of Neighborhood Development

Sources: Figures 2, 3, 4, 5, manuscript map of dwelling size prepared by the author, and field observations. See pp. 30-31.

Figure 7. Selected Non-residential Uses

Data from Cook County Zoning Commission, "Cook County Land Use Survey, 1940" (Manuscript maps available at the office of the Chicago Regional Planning Association). Data also from field mapping.

Figure 8. Vacant Land Served with Local Improvements

Vacant land includes Classes 3 and 4 residential use density in Figure 2.

Land served with water system from Chicago Board of Underwriters, "Maps of Water Distribution Systems, Park Ridge, Des Plaines, Mount Prospect, Arlington Heights, Palatine, and Barrington" (Chicago, 1934-1942).

Land served with sewerage system from blueprint maps of sewerage systems of Park Ridge, Des Plaines, Mount Prospect, Arlington Heights, Palatine, and Barrington on file at local municipal offices.

Land served with paved streets from field mapping.

Figure 9. Expansion of Subdivided Land, 1854-1941

Data on the boundaries of most subdivisions and the date of subdividing was obtained from township atlases in the offices of the county clerks of Cook and Lake counties and from the plat indexes and plat books in the offices of the county recorders of same counties. Data on the subdividing in Cook County prior to the Chicago Fire was obtained principally from the records of the Chicago Title and Trust Company.

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